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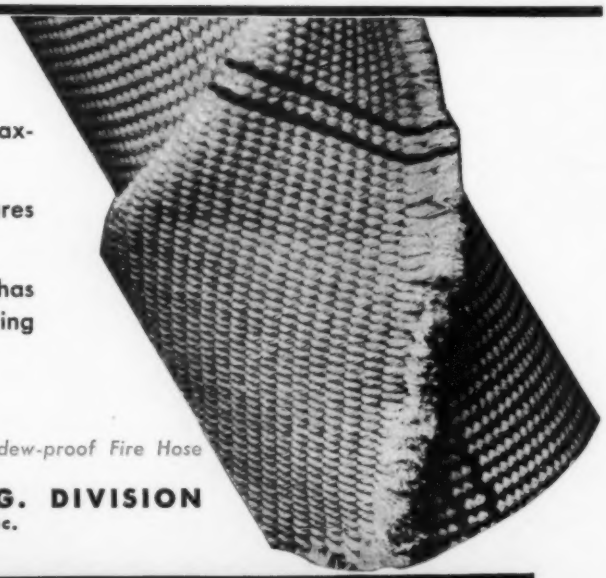
FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ol. 87, No. 8 AUGUST, 1934 Member A.B.C.—A.B.P.

Members of the Fire Brigade of London, England, Directing Heavy Streams from the Tops of European Type Aerial Ladders

MANHATTAN FIRE HOSE



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Ed. Wynn

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GASOLINE

11 11

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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 187-

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Greetings!

—and congratulations to those fortunate enough to be able to attend the 62nd Annual Convention of the International Association of Fire Chiefs at Milwaukee, August 21-24.

To the others who have been hit by the economy axe and can't beg or borrow the wherewithal to make the trip—don't worry say we. Your good old friend FIRE ENGINEERING will bring the whole story to you in the next issue, and, judging from the program, we believe it's going to make mighty interesting reading. Four members of our staff—Fred Shepperd, I. H. Case, W. S. Clevenger and L. S. Roche—will be at the convention to record everything that happens.

The Publishers

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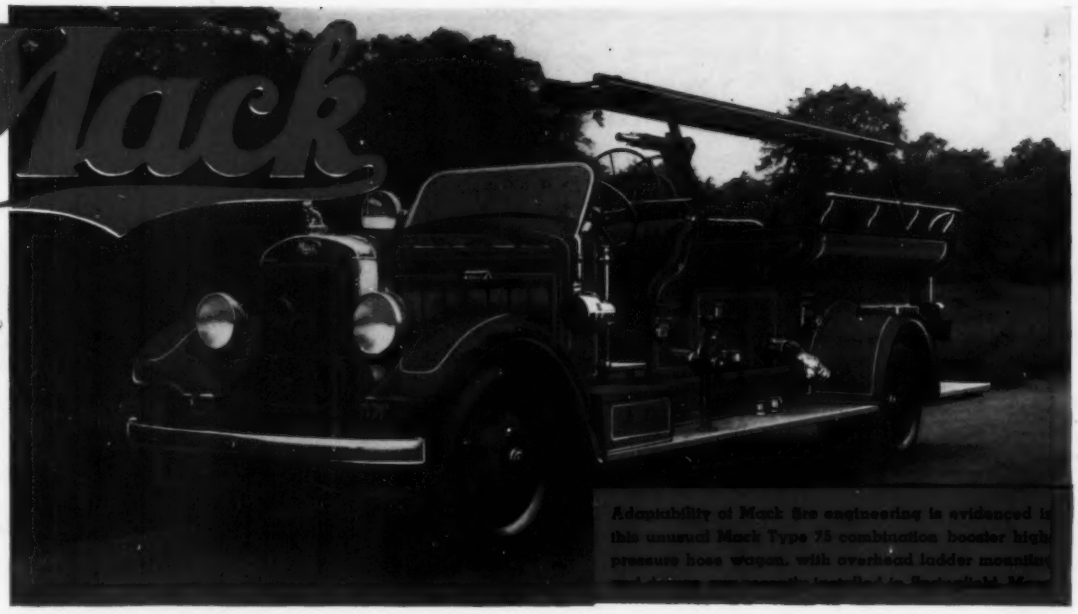
MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

Mack



Adaptability of Mack fire engineering is evidenced in this unusual Mack Type 75 combination booster high pressure hose wagon, with overhead ladder mounting and [illegible] installed for Springfield, Mass.

OUT AHEAD IN FIRE ENGINEERING

Whether local requirements call for standard types or special engineering, Mack's long experience and vast and varied resources insure apparatus that conforms to specific needs. • Mack progressive fire engineering has not only kept pace with increasing fire department efficiency—It has frequently and persistently led the way. • Always far ahead in modern design and construction, Mack has pioneered most of the worthwhile improvements of late years. Notably, four-wheel brakes, left-hand steer, pressure-volume centrifugal pumps and engine-driven mechanical aerial ladder hoist.

Springfield's new Mack is equipped with an 80-gallon booster tank, booster pump and a special Siamese connection allowing hydrant coupling direct to booster hose and tank, as well as to a lay-off of 2½-inch hose. Safe and comfortable seating for the crew and roomy compartments for equipment are afforded by the flared body design.

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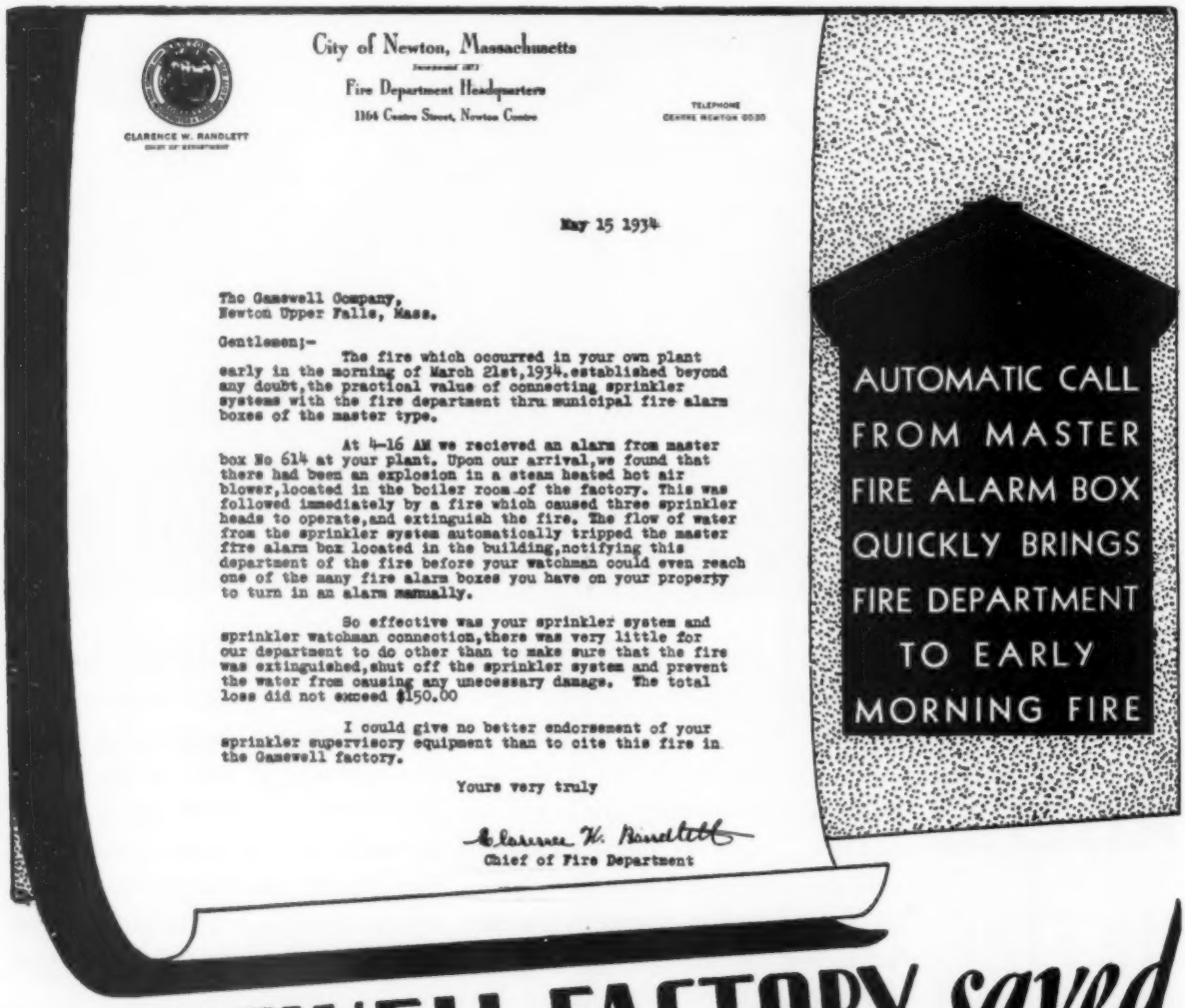
MACK TRUCKS, INC. Fire Service Division, 25 Broadway, New York, N. Y.



City of Newton, Massachusetts
Fire Department Headquarters
1164 Centre Street, Newton Centre
TELEPHONE CENTRE NEWTON 0030

CLARENCE W. RANDLETT
CHIEF OF DEPARTMENT

May 15 1934

The Gamewell Company,
Newton Upper Falls, Mass.

Gentlemen:-

The fire which occurred in your own plant early in the morning of March 21st,1934.established beyond any doubt,the practical value of connecting sprinkler systems with the fire department thru municipal fire alarm boxes of the master type.

At 4-16 AM we recieved an alarm from master box No 614 at your plant. Upon our arrival,we found that there had been an explosion in a steam heated hot air blower,located in the boiler room of the factory. This was followed immediately by a fire which caused three sprinkler heads to operate,and extinguish the fire. The flow of water from the sprinkler system automatically tripped the master fire alarm box located in the building,notifying this department of the fire before your watchman could even reach one of the many fire alarm boxes you have on your property to turn in an alarm manually.

So effective was your sprinkler system and sprinkler watchman connection,there was very little for our department to do other than to make sure that the fire was extinguished,shut off the sprinkler system and prevent the water from causing any unecessary damage. The total loss did not exceed $150.00

I could give no better endorsement of your sprinkler supervisory equipment than to cite this fire in the Gamewell factory.

Yours very truly

Clarence W. Randlett
Chief of Fire Department

AUTOMATIC CALL FROM MASTER FIRE ALARM BOX QUICKLY BRINGS FIRE DEPARTMENT TO EARLY MORNING FIRE

GAMEWELL FACTORY *saved* FROM HEAVY FIRE LOSS —by OWN APPARATUS

THE GAMEWELL COMPANY
Newton, Mass.
"A Box A Block"

It wasn't necessary for us to have an explosion and fire in our own plant to convince us of the value of connecting sprinkler systems with the municipal fire department thru a Gamewell master fire alarm box *(known as the Sprinkler Watchman)*. The service record of our *Sprinkler Watchman* hook-up in hundreds of other properties had convinced us on that.

Fire Chief Clarence W. Randlett of Newton, Mass., tells us in the above letter how our *Sprinkler Watchman* hook-up saved our own plant from a heavy loss. This is just one more case illustrating the value of a sprinkler system connected to the fire department thru the dependable Gamewell master fire alarm box.

Every fire chief should encourage the sprinklered properties in his city to install this *Sprinkler Watchman* hook-up. It will save your city thousands of dollars loss in taxable property and prevent your taxpayers from being thrown out of work because of factories being destroyed by fire. We shall be glad to send you literature on our *Sprinkler Watchman.*

FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 87 AUGUST, 1934 Number 8

With the Editor

Has Europe Taken the Lead?

We in the United States have always been inclined to boast of our leadership in design and manufacture of fire apparatus and equipment. We have always been ready to point to our large capacity pumpers, as compared with those built abroad, as conclusive evidence of leadership.

But are we really leading?

Europe builds 150-foot aerial ladders; the best we do over here is 85 feet, despite the fact that we, and not Europe, have the high buildings. Their 150-foot aerials have a much less over-all length than even our city service trucks.

Europe (including Great Britain) is equipping new fire trucks with closed-in bodies for protection of men and equipment; the best we do is to protect those riding in the front seat by putting on a windshield. They have apparently come to the conclusion that the quicker get-away from the station and the higher speed of travel, through general use of motor driven apparatus, imposes a greater hazard to health of the men responding to night alarms in cold weather. And yet their cold weather can't be compared with ours.

In Europe, as here, new devices are continually being developed and added to the equipment of fire trucks. To keep the ultimate weight of the trucks down, they have resorted to the use of aluminum alloys in the manufacture of many appliances and truck body equipment, with good results. Lessening the weight of appliances also lessens the burden on the men who must carry or handle them.

The time is ripe for us to make an inventory of our progress in fire apparatus and equipment design and manufacture. We may find we are trailing instead of leading.

Fred. Sheppard

The London Fire Brigade

By DONALD HOLBROOK,
Civilian Aid to Chief of
Newton, Mass., Fire Department

HAVING occasion to be in London during the latter part of May, I had an opportunity to present a letter of introduction to the Chief Officer of the London Fire Brigade, Major C. C. B. Morris. It was my hope that I could obtain in two days' time a general though brief survey of the methods of operation and types of apparatus used by the London Fire Brigade. Through the courtesy of Major Morris, a most interesting and instructive visit was made possible and I was afforded an opportunity not only to see the stations and apparatus, but also the men in action.

There appears to be an erroneous idea in the United States that because of the type of English buildings and the fact that a multiple alarm fire in the city of London is a rarity, the London Fire Brigade has not reached the same state of high development which may be found in large cities of America. May I immediately take occasion to correct American readers. Local conditions, of course, have a great deal to do with the development and nature of the fire-fighting force, and local conditions in London are far different from those which exist in most American cities. Nevertheless, there are a large number of fires and there is a need for an efficient fire force in this, the world's largest city in area.

A splendid, highly disciplined organization has developed in London which may well command the respect and interest of any American fireman who is not limited by prejudice to his own particular bailiwick. The country which has produced the highly disciplined body of men which has characterized the British Army and Navy will have an efficient lot of men in its chief emergency organization, particularly where its members have been largely drawn from the military services.

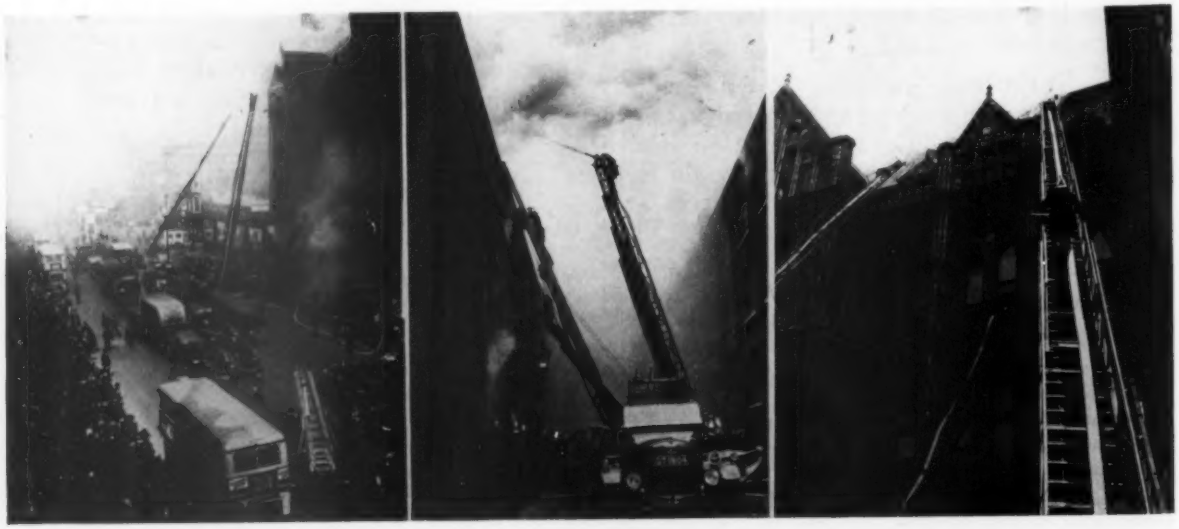
Personnel and Officers

Men of the London Fire Brigade can only rise through the ranks to the position of Superintendent. The city of London is divided into six fire districts, each district in charge of a Superintendent. There is also a Superintendent at headquarters in charge of mobilization and one in charge of a special division known as the theatre district. The Superintendent stationed at headquarters is known and ranked as the Senior Superintendent.

There are six principal officers of the Brigade headed by Major Morris as Chief Officer and Commander A. N. Firebrace, Senior Division Officer. These officers are obtained from the outside, usually from the military services, and have spent many years in their respective positions. The Chief Officer and his assistants are in turn responsible to the London County Council and its committee for the London Fire Brigade.

The company form of organization is not found in London. The unit appears to be the station which is in charge of a Station Officer who is on permanent duty and does not work on shifts as do the sub-officers and men under his authority. Each Station Officer has as assistants two or three sub-officers. These officers are not ranked by title but rather by seniority. There are no specialists and each man is trained in every branch of the active department work. The sub-officers and men work on shifts somewhat similar to American practice. When on duty at night, however, sub-officers and men are not allowed to undress and such rest as they may wish to have can be obtained only from lying on a sort of canvas cot. The Station Officer is in charge at the scene of a fire and usually does not resort to higher authority except in the case of large fires. The Station Officer rides to the fire on the pumper. Only the principal officers and Superintendents have cars.

Sixty per cent of alarms are received through a fire call system which roughly corresponds to our fire alarm boxes. These fire call boxes are distributed throughout



Three Views of the London Fire Brigade in Action

Each of these photographs shows the extension ladders on a carriage which can be wheeled close to the building, and also the Magirus type of ladders which are mounted on a turn table and which can be raised to a great height. At the right is a Denis-Magirus 100-foot ladder.

the city at about 300 feet apart in the thickly congested districts and not more than 1,200 feet in the outlying districts. They consist of an upright post surmounted by a small 12-inch cylinder protected on one end by a glass, inside of which is a pull handle. A citizen sounding the alarm breaks the glass and pulls the handle, transmitting a signal direct to the nearest fire station. There is a signal board in the watch room of each fire station, on which are arranged from 15 to 60 indicators, depending on the station location. The alarm signal causes a metallic flap on one of the indicators to fall, exposing the number and the printed address from which the fire call has been sent. Simultaneously station lights turn on and an alarm bell rings. The men mount on the apparatus, the address is given by the man on watch, and they are away to the fire in ten or fifteen seconds. The man on watch does not go to the fire, but telephones to one of the several super stations advising them of the alarm and location. The super station will then dispatch additional apparatus from a nearby station according to a running card.

Should the Station Officer, after having arrived at a fire, require additional assistance, or, if the fire is serious, he may call for one of several standard alarms. These are somewhat as follows, corresponding to an American second alarm: "home call." This brings automatically additional apparatus up to four pumps as indicated on the assignment card at the super station. Corresponding to third alarm: "district call," bringing up to total of ten to twelve pumpers. Corresponding to the fourth alarm: "brigade call," bringing up to a total of twenty pumpers. Superintendents may call for special apparatus without using one of the standard calls. When the apparaus (English term "appliances") are ready to make up and the fire extinguished, the Station Officer reports "Stop," corresponding to the American "All Out."

It will be noticed under this system that considerable time in alarm transmission is saved over the American plan. There is no waiting for one or more rounds of the tapper to strike nor the duplication of an alarm through a central Fire Alarm Station. When the flap in the watch room falls and the bells ring, the men have mounted the apparatus and are on their way.

Rear View of the Enclosed Type of Pumper

At each of the super stations are assignment cards, generally corresponding to our running cards. These assignment cards are used when making an assignment in response to a telephone alarm or for a "home," "district," or brigade call. The Superintendent may request additional pumpers which will be despatched by the super station from stations nearest the scene of the fire. The watch room of each super station is in reality a miniature central fire alarm station. The super station keeps headquarters acquainted with the location and progress of fires in its district. The Superintendents reside at the super stations.

The Old and the New in British Fire Apparatus Design

The two units of the Edinburgh Fire Brigade, typical of the old and new designs, reveal the trend in British fire apparatus construction. The movement is towards a completely enclosed pumper.

Stations, Routine and Apparatus

The stations, although in many cases in old buildings, are models of neatness with shining brasses and new paint. The apparatus floor is not unlike the floor of the American station except that colored lights indicate to the sub-officers the selection of apparatus to be sent on a particular assignment from one of the super stations. Alarm bells ring steadily and there are no box numbers tapped out. The principal officers and superintendents may live with their families at the fire stations. Their quarters are segregated, but usually are part of the station building itself.

The English fire apparatus (appliances) is very striking in appearance. Due to the narrow lanes, courtyards and streets of London, all the apparatus have short wheel bases. The machines are almost entirely produced by three makers, Dennis, Merryweather and Leylands. The pumpers have a maximum capacity of 750 gallons per minute. The pumps are attached at the rear of the machine through a secondary gear box. The men and officers ride either on the front seat or on the sides of the vehicle. The hose is carried in enclosed compartments in the center.

Most of the pumpers have attached at an angle from the rear, and extending front half-way over the engine hood, a sliding ladder which is detachable from the pumper and may be moved around on two large wheels. This is considered one of the most important pieces of apparatus and is termed by the English "an escape." Its primary use is for rescue work. The pumper arriving at a fire, the escape is quickly detached, rolled to the side of the building, and the latter raised by cranks to the required height. This escape carries a ladder of comparable size and height to the American 50-foot aerial ladder. Its advantage appears to be that it may be man-

New Fire Apparatus of the London Fire Brigade

This photograph gives a detailed study of the mechanism and construction of the movable extension ladders, and shows how the pump is mounted on the apparatus.

oeuvred in small areas and narrow spaces, where the American aerial ladder could not operate.

A special mention must be made of the marvelous piece of machinery known as the Morris Magirus automatic sliding ladder. This is an especially arranged motor truck carrying on a rear turntable a telescopic steel ladder mechanically operated by the motor and controlled in its entire evolutions by one man. The ladder can be swung to any angle and may reach a height of 100 feet. It carries a 1⅛-inch tip (on the top extension) with hose line which can be utilized in the nature of a small water tower. It is a striking effect to see this piece of apparatus draw up in front of a building and a fireman run up the ladder as it extends itself mechanically. Due to the telescopic action the wheel base of the motor truck is no longer than that of the pumpers and consequently can be easily maneuvred.

There are other types of motor trucks, such as a special truck carrying foam generators and trucks designed to carry additional hose. Each pumper carries 800 feet of 2½-inch hose.

Special mention may be made of the two emergency tenders which correspond to our rescue wagons. These are closed vehicles of large size with complete emergency, accident and other special equipment including floodlights and self-contained masks.

English Fire Departments have commenced the use of enclosed bodies for fire apparatus, there being a number in use, including pumpers, outside of London. The London Brigade have had designed a truly remarkable new type of enclosed pumper which they expect to have in service shortly. In this practice they are copying the departments in Paris, Brussels and Amsterdam which have concentrated almost entirely on closed body apparatus.

Traffic signals on apparatus consist only of bells. The department have felt that sirens would unnecessarily prejudice the public against the department.

Uniform

The uniforms of the London Fire Brigade are striking and military in appearance. High leather boots are worn, which I have been assured are thoroughly waterproof. There is a rubberized cloth attachment fitted to the boots which can be pulled up belt high somewhat similar to our American hitches. Each officer and fireman, when at the scene of a fire, is in full uniform. The blouses are made of Melton cloth, a practically waterproof material. It was explained to me that these uniforms gave the men more freedom of motion and elasticity than could possibly be obtained with rubber garments. A brass helmet, insulated inside by sponge rubber and light in weight, is always worn, protecting the head. I was told that although these brass helmets have been a custom for many years, serious consideration is now being given to changing their design and to use some composite material for replacing the brass, as the metal has proved to be an easy conductor for electrical current.

Each fireman wears at all times, when on duty, a wide fabricated or leather belt on which is secured a small hand-axe, ladder clip, and bobbin and holder. The bobbin contains a spool of light rope which may be dropped and used to pull up hose or other tools which may be necessary to use. A hose spanner is also attached to this belt. At headquarters and at strategic points miscellaneous equipment is kept. It was obvious to me that much study and thought had been spent on various kinds of tools and equipment.

I had the pleasure of attending their Wednesday afternoon drill at headquarters. This is a weekly affair conducted by men in training (probationers) and acts in the dual role of training for the men and an exhibition for the public. The latter point seems to be one well taken, as officers described to the onlookers the events and the method of sending an alarm of fire. It is all very educational and is excellent publicity for the fire force, and must go a long way to improve the relations of the Brigade with the general public.

It seems to me that it would be of great advantage to both the American and English fire fighting forces to conduct an exchange of ideas on department routine, and particularly on the development of equipment and apparatus. I believe the American departments can show the Englishmen developments which they might like to consider and apply in their Brigade, and I am sure that we may gain benefit from an understanding of the developments which have been made in English fire apparatus and equipment.

London Fire Brigade

Authorized Fire Staff	1,949
Administrative, Technical, Clerical and Workshops' Staff	189
Fire Stations	62
River Stations	3
Pumps	87
Escape Vans	74
Turntable Ladders	12
Emergency Tenders	2
Foam Generators	3
Foam Tender	1
Lorries	8
Tenders	3
Cars	18
Canteen Van	1
River Floats	4
Street Fire Alarms	1,691
Fire Hydrants	30,952
Hose (Miles)	57
Fires during year 1932	5,055
Calls during year 1932	7,682

Special mention might be made of the following which deserve consideration of American departments:

1. Closed bodies on apparatus, protects both firemen and equipment.
2. Mufflers on exhaust.
3. The mechanical telescopic ladder with short wheel base.
4. The English escape, saving high cost of aerial ladder trucks and providing ease of movement.

Extra Water for Fire Fighting

Open Bodies of Water, Essential in Rural Protection, Can also be Used to Supplement Hydrant Protection in Towns and Cities.

ANY accessible open body of water, such as a pond, river, or canal, furnishes an excellent suction supply for fire department pumpers. In rural sections such bodies of water are generally the only supply; in built-up sections they can and often should be used to supplement the public mains, as they provide a

Drawing from a Suction Well

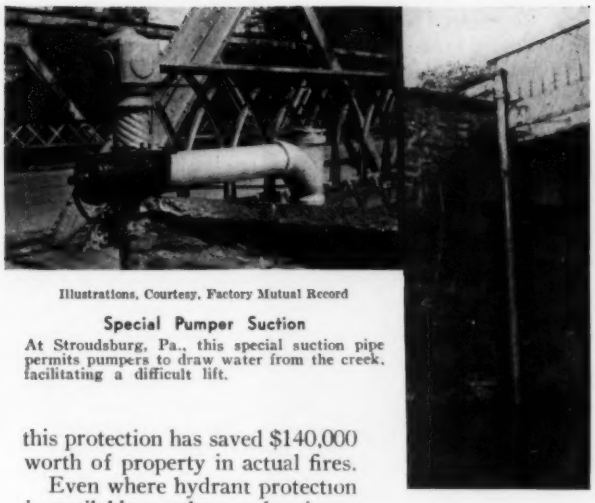
A test in a large lumber yard in Upper Michigan. From the pumper suction-well near the shore of a bay, an intake extends out into deeper water.

valuable, practically inexhaustible, additional supply of water for fire fighting.

Providing Artificial Suction Supplies

In rural sections, much valuable work has been done in recent years in providing artificial suction supplies where none existed. Starting ten years ago, Brunswick, Me., has built eighty-four suction places protecting 420 buildings valued at over $600,000. Several methods were used: damming brooks, excavating spring holes, digging pools in clay soil which retains rainfall, laying suction pipes to inaccessible swamps and ponds, and providing pumper locations at low tide along the seashore.

In parts of Massachusetts, CWA funds have been used in small communities to build water holes and cisterns, to provide suction sumps in brooks, to construct pumper approaches to shallow ponds, and so to provide water supplies which make pumper protection available to 10,000 buildings with an assessed value of $17,000,000. Nearly 500 of these pumper locations have been constructed in five months at a cost of $115,000, and already



Illustrations, Courtesy, Factory Mutual Record

Special Pumper Suction

At Stroudsburg, Pa., this special suction pipe permits pumpers to draw water from the creek, facilitating a difficult lift.

this protection has saved $140,000 worth of property in actual fires.

Even where hydrant protection is available nearby ponds, rivers, or canals provide additional sources of water for fighting fires, and their value should be more generally recognized. The amount which hydrants can deliver is limited by such factors as the size and condition of the mains, the distance back to the reservoir or pumps, domestic consumption, and the pressure. When serious fires occur, the mains may not be able to supply the heavy demand, and some of the pumpers can then be most effectively used by taking suction from any available open water. In fires where sprinklers are a factor, pumpers should use natural supplies wherever possible and connect to hydrants only after such supplies are fully utilized.

A few years ago, a serious fire in an automobile assembly plant resulted in a loss of $330,000, largely because firemen connected their five pumpers to private yard hydrants and used the water which should have supplied the sprinklers. Instead, the pumpers should have started drawing at once from a nearby river, in which case the sprinklers supplied by the private system, backed by good hose streams from the pumpers, could have quickly controlled the fire.

Failed to Take Suction from Nearby Lake

Similarly, firemen failed to use a nearby lake when they were called to fight a serious fire in the pumping station at Paris, Ill., last winter. Instead, they drove to a hydrant a half-mile away, to which this same lake water

Stream Dammed to Make Suction Pond

Typical example how Brunswick, Me., has provided water supplies for fire fighting in rural districts.

was being forced by pumps in the burning station. They laid a line of hose a half-mile back to the station, but did not have quite enough to reach the fire. Even if the hose had reached, friction loss in such a long line would have seriously cut down its effectiveness. Besides, the water supply would have proved unreliable because the fire soon put the pumps out of service. If the pumper had taken suction from the lake at first, several good streams would have been available immediately, and the fire very likely would have soon been controlled. As it was, the station was completely destroyed and the town was without water for thirty-five hours.

Pumper Suction from a Village Well
Taken by a Factory Mutual Inspector at either Averill Park or West Sand Lake, near Troy, N. Y. A number of such suctions, installed throughout the village, are the only supply for pumpers. They have proved their value on several occasions.

Industrial Plants Provide Pumper Suction

A number of industrial plants have improved their fire protection by providing pumper suction facilities at neighboring bodies of water. A textile machinery plant installed underground pipes from a pond to two hydrants to which pumpers can connect. A food products plant has provided connections so that pumpers can draw from a 100,000-gallon mill-use reservoir and pump directly into the fire system. Several paper mills have built docks at river banks for pumpers. A small, isolated clothworking plant with a limited water supply installed a suction well for pumpers at a river bank 650 feet away. Another suction well was constructed by a large lumber yard near the shore of a lake, with an intake pipe extending 100 feet out into deep water. A Pennsylvania city has provided several connections permitting pumpers to draw from a creek which runs through the city.

Added Protection, with Small Cost

Arrangements of this kind give added protection and the cost is very small. Other plants with sources of water available should provide similar facilities. A suction supply for pumpers is particularly important for plants under construction where fire protection or private water supplies have not yet been provided, for isolated plants where water supplies are limited, and for properties having lumber yards or log piles, fires in which would require large volumes of water.

It is an excellent idea for plant executives to invite Fire Department officers on both day and night duty to visit their factory in order to make definite plans in advance as to how pumpers are to be placed most advantageously in case of fire.—*Factory Mutual Record.*

Brook Dammed to Make Suction Pond at Brunswick, Me.

Chief Quinn, of Santa Clara, Retires

C. C. Quinn, for fourteen years Chief of the Santa Clara, Cal., Fire Department, retired after twenty years in the service. He was Assistant Chief for six years. Chief Quinn will be succeeded by William Stout.

Following in His Father's Footsteps

John W. Gardner is a "chip of the old block." He is the son of William H. Gardner, Chief of the Kansas City, Mo., Fire Patrol, and when a fire started in a vacant lot adjoining his father property, and threatened to set fire to the garage and that of a neighbor, John called to his mother to turn in a fire alarm while he donned one of his father's old uniform caps. Then he turned on the water in the 300-foot hose and ran to a rose trellis by the garage. He sprayed the water over the family garage and that of a neighbor. The fire reached the back end of the Gardner lot and destroyed the garden, but the boy kept at his job.

While firemen of engine company No. 28 at Seventy-third Street and Troost Avenue were connecting their hose, John still fought the fire with the garden hose. The firemen later said the boy had performed his task well.

Pacific Coast Convention September 11-14

The forthcoming convention of the Pacific Coast Association of Fire Chiefs to be held at Pasadena, September 11 to 14 inclusive, promises to be one of the largest conventions ever held on the Pacific Coast.

Chief E. F. Coop, head of the Pasadena Fire Department, as general Chairman of the Committee handling the details of the convention reports excellent progress being made in all branches of activity. Preparations for the convention were started early in April, and with plenty of time to plan and consider, some novel and interesting events have been planned by the various committee heads.

The convention program in itself, as far as business sessions are concerned is alive with current topics of importance to every Chief on the Coast. Outstanding Pacific Coast Chiefs are contributing papers covering nearly every phase of Fire Department activity. Since plans have been made for strenuous business activity, entertainment planning likewise has been thorough. Elaborate programs will be presented each day of the convention.

One of the special features will be a parade. Over one-hundred invitations have been issued to surrounding cities and towns, also to exhibitors and manufacturers to enter floats in the parade and from responses received to date, it appears that this phase of convention activity will be a spectacular event. Four divisions, crowded with entries of every description are in prospect.

Exhibitors have been especially taken care of this year. The flat floor portion of the new Pasadena Civic Auditorium has been assigned to commercial exhibits and to date all space has been sold. This feature of the convention will be particularly interesting as prizes will be given to the most interesting and best displayed booth.

The convention ball will be held in the exhibit hall on the last night of the convention, and so large is the hall itself, that exhibits will remain in place during this event.

The memorial service as planned, will be an event never to be forgotten by those in attendance. Because plans for the convention have been started so early excellent results will be experienced.

Small Town Problems, Fire Alarm, Extinguishers and Radio Discussed at

New England Chiefs' Convention

Conclusion of the report of the twelfth annual convention, New England Association of Fire Chiefs, held at Burlington, Vt., June 26 to 29. This is a continuation of the session of Thursday morning, June 28:

By HARRY BELKNAP

THE last paper presented at this session was on "The Water Problem of the Small Town," by Chief Irving C. Hammond, of Westport, Mass. The Chief told of conditions in rural communities where no water supplies are available and of good results obtained from tank trucks and water holes. Westport has one truck with a 275-gallon water tank and another with a 1,000-gallon tank and a 500-gallon rotary pump. This truck carries two lengths of hard suction and a reel of one-inch hose.

Chief Hammond said that firemen should be instructed how to obtain the best results from a limited amount of water.

The Chief was tendered a vote of thanks for the paper which Ex-Chief John P. Crowe, of Westboro, Mass., declared was "one of the finest papers ever read at a Fire Chiefs' convention."

Care of Fire Alarm System

The first paper presented at the afternoon session was on "The Proper Care of the Fire Alarm System," by Chief Charles H. French, of Manchester, N. H.

The Chief said that many small towns have good apparatus, but no adequate fire alarm system. The first requisite of a Fire Department, he pointed out, is a quick and reliable method of notification that a fire is in progress.

He described the various early methods of giving alarms and told of confusion caused by duplication of names when the telephone is used. Every town should have a fire alarm telegraph system in charge of a competent electrician, the Chief said. Care should be taken not to overload the circuits. The Chief described alarm transmitters and other parts of a modern alarm system. He mentioned the proper sizes of wires and the care needed to prevent grounding, interference, etc.

Upon motion by Chief William C. Mahoney, of Peabody, Mass., a vote of thanks was given for the paper.

Hazards of Tetrachloride Extinguishers

Chief Harry J. Monahan, of Berlin, N. H., President of the Fire Chiefs' Club of New Hampshire, spoke on "The Hazards of Using Tetrachloride Extinguishers." He said that the sudden and extensive release of non-inflammable gas is effective on fires, but dangerous to persons using the extinguisher, especially in confined spaces where men are often overcome by the fumes. The fumes produced when the carbon tetrachloride is applied to burning wood produce chlorine and phosgene gas. He told of an experience at the Portsmouth, N. H., navy yard in Kittery where two men died from the effects of the gas. He said the hazard in the open air is negligible and that this type of extinguisher is effective on small oil and electrical fires.

A vote of thanks for the paper was tendered upon motion by Chief Thomas A. Qualey, of Medford, Mass.

Chief Daniel B. Tierney reported for the exhibit committee, which was composed of himself and Chief Thomas D. Keery, of St. Albans, Vt., and Chief Alfred H. Koltonski, of Rutland, Vt. The number of exhibitors was thirty-three.

Radio Service for Fire Departments

The next paper was on "Radio Service for Fire Departments" by Chief Henry A. Fox, of Boston, Mass.

The Chief declared that radio is still in its infancy and that new developments are constantly taking place. He said that a license is required from the Federal Radio Commission in Washington and that at present licenses for Fire Department radio are being issued only to departments with marine service. Other municipalities, however, can make use of their police radio for fire service. Only three cities, Boston, Detroit, and San Francisco have two-way radio transmission in their Fire Departments and Boston was the pioneer in this respect.

The Chief gave a detailed description of the Boston radio and told of the many needless runs formerly made by the Boston fire boats which are now eliminated by means of radio communication between the fire alarm office and the boats. All alarms and "all out" signals in Boston are sent out by radio, in addition to the fire alarm telegraph.

Upon motion by Chief John C. Moran, of Hartford, Conn., a vote of thanks was given Chief Fox for the paper.

Chief William C. Mahoney, of Peabody, Mass., read a paper on "The Value of An Official Publication." Among those who took part in the discussion of this subject were Chief Oliver T. Sanborn, of Portland, Me.; Chief William H. Hill, of Belmont; Chief George L. Johnson, of Waltham; Chief Selden R. Allen, of Brookline; Chief Edward F. Dahill, of New Bedford; Chief Henry A. Fox, of Boston; Chief Burchard, of Little Compton, R. I.; Chief John J. Kennedy, of the Bryant Electric Company, Bridgeport, Conn.; Chief David A. DeCourcy, of Winchester; Ex-Chief John P. Crowe, of Westboro; and Captain John H. Day, of Lynn, Mass.

Captain Day and Secretary Daniel J. Looney, of Boston, spoke of the case of a fireman in Somerville who was involved in an accident that resulted from passing a red traffic light while responding to an alarm.

Letters from the Massachusetts Drill Instructors thanking Chief Tierney and Chief Stockwell for courtesies extended to them were read by President Tierney, also a telegram of greeting from Alfred L. Miner, Chairman of the Massachusetts State Fire Prevention Committee.

This closed the Thursday afternoon session. Business was expedited to such an extent that it was possible to conclude the business of the convention on Thursday evening and the scheduled Friday morning meeting was therefore cancelled.

At the evening session Ex-Chief Irving H. Patt, of Central Falls, R. I., was elected an honorary life member of the association.

Fire Hydrant Marking Committee Continued

The registration committee reported a total registration of 487.

An amendment was passed making all officers of the association members of the board of diretcors.

Chief Joseph W. Randlette, of Richmond, Me., read a paper on "The Uniform Marking of Fire Hydrants." It was voted to continue the committee on this matter for another year.

Thanks were extended to G. H. Middlebrook, George A. McBride, and F. A. Deyette, the Burlington Board of Fire Commissioners, Chief Carl D. Stockwell, Deputy Chief William Carty, and the members of the Burlington Fire Department.

Officers Elected

At the closing session officers for the ensuing year were elected as follows:

President, Chief John S. Pachl, Annex Fire Department, New Haven, Conn.
First Vice-president, Chief David A. DeCourcy, Winchester, Mass.

Second Vice-president, Chief Carl D. Stockwell, Burlington, Vt.
Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.

State Vice-Presidents

Maine—Chief Joseph W. Randlette, Richmond, Me.
New Hampshire—Chief Charles H. French, Manchester, N. H.
Vermont—Chief Alfred H. Koltonski, Manchester, N. H.
Massachusetts—Chief Frank F. Dickinson, Brockton, Mass.
Rhode Island—Chief Henry Fortier, Manville, R. I.
Connecticut—Chief Albert B. Foy, Manchester, Conn.

In behalf of the association Chief Selden R. Allen presented Chief Tierney, the retiring president, with a handsome leather traveling bag and President Pachl pinned a past president's badge on Chief Tierney.

An invitation was received from Chief Edward F. Dahill, of New Bedford, Mass., to hold the 1935 convention in New Bedford and it was so voted.

Secretary-Treasurer O'Hearn and Sergeant-at-arms Kennedy were re-elected and President Pachl reappointed Harry Belknap as Press Representative and named P. Hildreth Parker, George W. Austin, Herbert K. Pratt, and Charles J. Curtaz as Committee on Registrations and Reservations.

Chief William C. Mahoney, of Peabody, Mass., and Chief Michael W. Lawton, of Middletown, Conn., were appointed Directors and Chief Henry R. Taft, of Norwich, Conn.; Chief W. H. Hill, of Belmont; and Chief James S. Warnock, of Swampscott, Mass., were named as the Committee to Confer with the New England Association of Municipal Electricians.

The entertainment for the ladies at the convention included a boat trip to Port Kent, theatre party, roof garden dance, and a trip to Ausable Chasm.

The Exhibits

The basement floor of the Municipal Auditorium in Burlington which opens directly onto the street and is in reality the ground floor proved an ideal place for the exhibition of fire department apparatus, equipment, supplies, and accessories held in connection with the 12th annual convention of the New England Association of Fire Chiefs.

The Exhibit Committee was composed of Chief Daniel B. Tierney, of Arlington, Mass., Chairman; Chief Thomas D. Keery, of St. Albans, Vt., and Chief Alfred H. Koltonski, of Rutland, Vt.

Two pieces of motor fire apparatus were on display, a 1,000-gallon Mack pumper and a 500-gallon Maxim pumper. The later piece of apparatus has been purchased by the town of Orono, Maine, and went there under its own power immediately after the close of the convention.

One of the novel exhibits and one which attracted a great deal of attention was the new sliding pole for firehouses, with automatic opening and closing pole hole shutters. Both the pole and shutters are of metal with chromium finish over brass and are manufactured by the F. N. McIntire Brass Works, of Boston. Poles of this type are installed in the new firehouse which was recently opened near Harvard Square in Cambridge. T. S. McIntire, F. L. King, and C. F. Zelesky were in charge of the exhibit.

The Gamewell Company, makers of fire alarm equipment, had a very attractive display and their booth, presided over by the tall and affable George Morley, was furnished with comfortable seats and lounges and was tastefully decorated with two huge vases of flowers.

The Gamewell display consisted of a Peerless succession master 3-fold fire alarm box, an electro-mechanical 10-inch alarm gong, a 6-inch gong, a low rate rectifier, supervisory panel, diaphone, I.C.S. battery cell, Peerless take-up reel, tapper bell, Smith balanced electric valve for diaphone operation, Peerless transmitter, 4-circuit Nonpareil recording puncturing register, Excelsior recording puncturing register, Excelsior time stamp, Nonpareil take-up reel, wire terminal, and the new "Vitalarm," an individual automatic fire alarm signal for homes and institutions which emits a series of loud noises upon a sudden rise in temperature indicating a fire.

Besides Mr. Morley, the Gamewell staff included Edward J. McCarthy, New England Sales Manager; the following Sales Engineers, Frank M. Tiffany, Russell A. Glenn, Everett L. Angier, and Charles T. Smith, and Charles "Sandy" Chapman, of the Public Relations Department.

The Arthur H. Blanchard Company, of 25 Hampshire Street, Cambridge, Mass., had a fine exhibition of fire department supplies including the products of the Boston Woven Hose and Rubber Company, nozzles made by Andrew J. Morse & Son, Inc., the Blanchard applied rubber coating for fire hose, the Flexicot stretcher, and the Pacific portable gasoline pumps for use in fighting forest fires. The Blanchard Company also showed a diving helmet and complete outfit for underwater emergency work. Mr. Blanchard had as his assistants, F. A. Grant, Andrew Deible, and Edward J. "Tip" O'Neill.

The Maxim Motor Company, of Middleboro, Mass., in conjunction with the Blanchard Company, showed a 500-gallon rotary pump Maxim fire truck fitted with a 100-gallon booster pump and equipped to carry six lengths of suction and 1,200 feet of 2½-inch hose.

The Mack International Motor Truck Corporation showed a 1,000-gallon triple pressure volume pump combination with 100-gallon booster pump and tank and fitted to carry 1,200 feet of 2½-inch hose. An interesting exhibit of this firm was a pump and transmission "exploded" or opened up to show its working parts and connected up with an electric motor to show the method of operation. This was of the same type as the pump in the engine displayed with 4 speed and reverse road transmission combined with single speed pump drive.

The Mack firm was represented by D. C. Fenner, Vice-President; Walter McLean, Boston Branch Manager; C. K. Ball and C. W. Woodfield, of New York, and John Davis, Demonstrator.

Louis W. Bills, of Lexington, Mass., maker of fire alarm equipment, displayed a new type of combination fire alarm and police signal pedestal box, punch registers, a time clock stamp, 10-inch alarm gong, light switch, and Cunningham air whistle. Mr. Bills was assisted by Ralph Poor.

D. B. Smith & Co., of Utica, N. Y., showed their well known Indian Fire Pumps for use in fighting forest fires.

The Fabric Fire Hose Company, of Sandy Hook, Conn., exhibited their well known wax and Para gun treated fire hose.

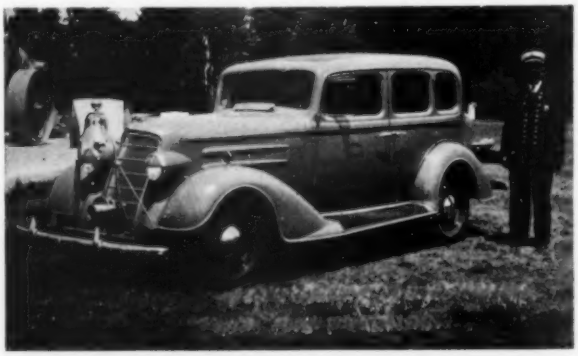
Flood lights and electric generating sets were shown by the Homelite Corporation.

The Seagrave Company, makers of motor fire apparatus, was represented by Frank E. Taft, of the Boston office.

Harry Carlow, of Taunton, Mass., New England Distributor for the Aherns-Fox Fire Engine Company, had a booth and gave out a handsome folder showing the latest types of Aherns-Fox motor pumpers.

The American-LaFrance and Foamite Industries, Inc., showed a complete line of fire appliances and fire protection equipment including Foamite generators, Sterling sirens, Alfite carbon dioxide extinguishers, LaFrance inhalators, Arctic extinguishers, gas masks, and LaFrance Goodyear fire hose. The representatives in charge were L. J. Creaser, General Manager; S. R. Jones, of the Maine District; George C. Loomis, of New Hampshire; James Coffin, of Massachusetts; and Harris Hunt, of Connecticut. The apparatus division of the firm was represented by Joseph A. Webber, New England Manager; A. G. Sullivan, General Sales Manager; and Robert Hazzard, of New York.

The C. G. Braxmar Company, of 242 West 55th Street, New York, made a fine showing with a display of badges, cap and coat insignia, and motor car fire plates. The firm also showed a line of emblematic jewelry. The exhibition



Here is a Chief's Car "Gratitude" Bought

In appreciation for the many unselfish things that Chief Albert Herring of Murphysboro, Ill., did for his community, both as head of the department and as Chairman of various committees for social and relief work, the residents contributed towards the purchase of an Oldsmobile for his use. Chief Herring said, "During my thirty-four years in the fire service here I have never been made as genuinely happy before, nor have I ever been so spurred to give whatever I may have left for the old town."

was in charge of G. E. Bradbrook, Vice-President; and John O. Veit, of New York.

The Eureka Fire Hose Mfg. Company showed multiple woven hose and double and single jacketed hose in 2½ and 1½ inch sizes. Among the well known brands of Eureka hose on view were Paragon, Uncle Sam, Trojan, Northern, Berwick, and Pacific. J. H. Green, President of the company, was on hand to greet his many friends among the Chiefs and was assisted by A. Lee Cowles, of Boston; and John T. Dwyer, of New York.

The American Fire Equipment Company, of Boston, Mass., exhibited all kinds of fire fighting devices including nozzles, axes, tools, pump cans, extinguishers, lanterns, flares, etc. John J. Scully, President; was assisted by James McLoughlin, Hubert Tracy, and J. A. Gravelle.

Harry J. Lovell, of 109 Brookline Avenue, Boston, New England Agent for B. F. Goodrich Fire Hose, showed fire hose, rubber coats and boots, sirens, and Underwriters' fire extinguishers and had an interesting display case showing the raw materials used in the manufacture of Goodrich fire hose. Walter Sholander, of Providence, R. I., was the assistant in charge.

The Justin A. McCarthy Company, of Boston, exhibited couplings, nozzles, helmets, fire hose, rubber coats, C O Two, Foamac, Pyrene, and Phomene extinguishers, the Phomene hopper for generating foam for oil fires; and a complete line of fire department supplies. Those in charge were Justin McCarthy, Arthur E. Lindh, and E. S. Noyes.

The Gorham Fire Equipment Company, of Boston, showed pump cans, extinguishers, M.S.A. ammonia masks, King Lites, axes, Sterling sirens, inhalator tanks, nozzles, and Ever Ready portable flashers. Other articles on view were Globe fire suits and quick hitches, the new Clark hose spanner, and spanner holder, refill charges for foam extinguishers, automobile name plates, and fire department supplies of all kinds. This firm acts as special agent for the Fabric Fire Hose Company and for the Kohler Manufacturing Company, makers of Wheat Lights.

The McPherson High Pressure Hose Shoe, a new device for holding hose lines under pressure, was shown by the General Apparatus Company, of 370 Lexington Avenue, New York. This device will stand alone on ice or snow without slipping and will support 320 pounds engine pressure unattended. It is made to take 2½, 3 and 3½ inch hose. G. T. MacInnes, of New York, was in charge of this booth and attracted crowds with his showing of motion pictures of the hose shoe in action.

The International Automatic Coupling, Inc., of Boston, showed a new automatic coupling device for 4½-inch hard suctions. R. B. Hart and D. S. Ring were the representatives. Besides couplings for hydrants and hard suctions at the engine this firm plans to make hose couplings of all sizes.

The Charles Niedner's Sons Company, of Malden, Mass., displayed Red Chain Forestry Hose and hose containers.

The Texas Company had an attractive showing of gasoline pumps, oils, greases and other Texaco products including dummies of Ed. Wynn and his horse advertising "Texaco Fire Chief Gasoline." C. N. Ransom and M. E. Files were in charge and distributed Ed. Wynn fire cartoons.

The Boston Coupling Company and Akron Brass Manufacturing Company, were represented by John J. Barker, Clifford H. Barker, and John C. Schellin, who is Secretary and Manager of the Akron Brass Manufacturing Company, of Wooster, O. The exhibit included a new 2½-inch expanding tool for attaching couplings to hose, and a new hose testing machine for testing two lengths of hose at one time up to 500 pounds pressure. Other displays were the Barker click gate for 2½-inch hose, roll pin for 2½-inch coupling, siphon, Akron nozzles, cellar pipes, angle nozzles, distributors, and siamese connections.

The Pyrene Manufacturing Company showed quart size extinguishers for use in automobiles or for electrical fires.

The Smith-Gray firm of New York City showed a line of firemen's and officers' uniforms and caps.

The Davis Emergency Equipment Company, Inc., displayed the Davis air line mask.

Ellis, Inc., of Boston, represented by Samuel Ellis and Alfred Schaubel, displayed sirens, search lights, flashers, flood lights, and other electrical devices.

The Portalite Company, of Cambridge, Mass., had a fine display of flood lights including a searchlight with a 300,000 candle power beam.

The Mine Safety Appliances Company, of Pittsburgh, Pa., showed the M.S.A. first aid kit, H and H inhalator, and the Burrell All Service Gas Mask.

Mr. and Mrs. Frederick E. Burnham had a display of Viogen, a practical treatment for burns.

The Midwestern Manufacturing Company, of Mackinaw, Ill., showed rubber coats and quick hitches for firemen.

The Franklin W. Haines Company, of Peabody, Mass., exhibited Hewitt hose, cellar pipes, nozzles, extinguishers, flares, and other items of fire equipment. Mr. Haines was in charge.

Diadem Surgicals, Inc., of Fitchburg, Mass., exhibited the "new-hesive gauze bandage." Robert Goguen and P. Goguen were in charge.

The Witch Soot Remover was shown by J. A. Murray, heating engineer, of Hartford, Conn.

The fire magazines, FIRE ENGINEERING, of New York; "The New England Fireman," of Boston; and "Fire Protection," of Cincinnati, O., were represented at the convention. Fred Shepperd, Editorial Director, and I. Herbert Case, Vice-President and General Manager, represented FIRE ENGINEERING; William Carroll Hill, Editor of "The New England Fireman" distributed copies of that publication; and Asst. Chief Ernest W. Williams, of Lynn, Mass., Associate Editor, looked after the interests of "Fire Protection."

The Shell Eastern Petroleum Products Company sent a large trimotored airplane to Burlington in charge of Major Gil Irving, of the Aviation Department of the Shell Company. This plane took up convention guests and carried the Massachusetts Drill Instructors on a special trip to Montreal. Because of the rough condition of the landing field additional flights had to be cancelled.

Among the guests at the convention were Stephen E. Patrick, Director of Vocational Education in Maine; and Howard E. Swain, Supervisor of Industrial Education in New Hampshire, both of whom were much interested in the training school evolutions for firemen.

Chiefs Who Attended the Annual Convention of the New England Fire Chiefs' Association

MAINE

Bancroft, George E., Auburn.
Estes, Reuben E., Lewiston.
McGlauflin, Floyd E., Presque Isle.
Mercier, Solomon A., Rumford
Ouellette, Joseph H. Saco.
Payson, Allen F., Camden.
Randlette, J. W., Richmond.
Ricker, Eugene T., Biddeford.
Sanborn, Oliver T., Portland.
Shaw, Daniel T., Portland.

NEW HAMPSHIRE

Crowley, Roger, Manchester.
Dolley, Herbert A., Tilton.
French, Charles H., Manchester.
Happny, Wm. T., Concord.
Hough, Willis F., Lebanon.
Lewin, Chas. H., Hanover.
Lewis, Percy R., Ashland (Fire Comr.).
Melendy, Albert C., Nashua.
Monahan, H. J., Berlin.
Riley, E. B., Keene.
Sargent, Fred M., Sunapee.
Stevens, Geo. B., Kingston.
Whiting, Homer B., Hampdon Beach.

VERMONT

Burt, Earl C., Enosburg Falls.
Grignon, Joseph, Bellows Falls.
Gunther, Paul, Winooski.
Haney, John C., Barre.
Hutchinson, Fred A., White River Jct.
Keery, Thomas D., St. Albans.
Koltonsky, Alfred H., Rutland.
MacInnes, Malcolm, Montpelier.
McCuin, C. J., Johnson.
Preble, A. G., Burlington (State Fire Marshal).
Shepard, Harley, Bethel.
Stockwell, Carl, Burlington.

MASSACHUSETTS

Allen, Selden R., Brookline.
Bacon, J. R., Weymouth.
Bartlett, Ernest N., Billerica.
Berry, W. A., Danvers (Ex-Chief).
Bills, Louis W., Lexington (Supt. Fire Alarm).
Burke, Thomas F., Pittsfield.
Casey, James M., Cambridge (Ex-Chief).
Collins, Waldo A., Holliston (Ex-Chief).
Cressy, John, Beverly.
Crittenden, Rufus A., Haverhill.
Crowe, John P., Westboro (Ex-Chief).
Dahill, E. F., New Bedford.
Daoust, Samuel, Marlboro.
DeCourcey, D. H., Winchester.
Deslauriers, Theodore, Ware.
Dickinson, Frank F., Brockton.
Dooling, Wm. J., Malden.
Dyer, S. B., Whitman (Ex-Chief).
Earley, Chas. G., Turners Falls.
Endicott, Charles K., Canton.
Fahey, Joseph J., Milford.
Ferris, Herbert, Greenfield.
Fleming, Wm. B., Barre.
Fox, Henry A., Boston.
Graham, Fred D., Wakefield.
Hammond, Irving, Westport.
Hawkins, Wm. H., Haverhill (Ex-Chief).
Hill, Wm. H., Belmont.
Holmes, J. Harry, Milton.
Hurley, James M., Boston (Civil Service Comr.).
Hurley, Patrick J., Holyoke.
Johnson, George L., Waltham.
Johnson, Robert H., Holden (Ex-Chief).
Joy, Mellen R., Saugus.
Kelley, Joseph E., Danvers.
Lane, Charles E., Orange.
Magee, Richard A., Truro.
Mahoney, Thomas H., Westfield.
Mahoney, W. C., Peabody.
Marchant, Homer, Gloucester.
Martin, Frank F., Cohasset.
Miguel, Manual S., Manchester.
Miller, Dean H., Ashland.
Mitchell, Melvin P., Hudson.
Neary, John H., Natick.
Newman, Frank C., Melrose.
O'Hearn, John W., Watertown.
Ordway, O. O., Reading.
Parker, P. Hildreth, Belmont (Box 52, Asso.).
Philbrook, George A., Middleboro.
Pierce, Walter, Arlington (Ex-Chief).
Powers, Wm. E., Clinton.
Pye, Frederick H., Stoughton.
Qualey, Thomas, Medford.
Root, H. C., Springfield.

Chiefs Who Attended the Convention of the New England Chiefs' Association (Continued)

Saulnier, John E., No. Adams.
Sennott, Daniel F., Boston (Ex-Chief).
Shea, Michael J., Fitchburg.
Sibley, Frederick H., West Springfield.
Slaman, T. H., Wellesley.
Soper, Arthur E., Mansfield.
Sullivan, Francis A., Lawrence.
Tappen, Robert M., Gardner.
Tarment, John H., Foxboro.
Thorne, Clark C., Millis.
Tierney, Daniel B., Arlington.
Tiffany, F. M., Newton (Ex-Chief).
Tracey, Frank E., Woburn.
Warnock, James, Swampcott.
Williams, Herbert, Cohasset (Supt. Fire Alarm).

RHODE ISLAND

Black, Irving S., Manton (Ex-Chief).
Brown, Frederick A., Apponaug.
Chevalier, Albric, Arctic.
Coughlin, Frank H., Manton.
Cote, A. J., Woonsocket.
Fortier, Henry E., Manville.
Lawton, Joseph S., Newport.
Nichols, Daniel A., Barrington.
Patt, Irving F., Central Falls (Ex-Chief).
Rosetti, Columbus, Westerly.
Smith, George W., Wakefield (Ex-Chief).
Titus, Wm. E., Pawtucket (Ex-Chief).
Young, Daniel F., Cranston.

CONNECTICUT

Burns, Thomas F., Bridgeport.
Burr, Edwin R., Stratfield.
Cameron, Lloyd J., West Haven.
Donnelly, T. H., West Hartford.
Dunnigan, F. P., Westport.
Foy, Albert B., S. Manchester.
Galvin, Milton, Naugatuck.
Gisborne, F. R., Old Greenwich.
Heitman, Henry H., Waterbury.
Judson, Allen D., Stratford.
Kennedy, John J., Bridgeport.
Lawton, M. W., Middletown.
Luby, John J., Wallingford.
McNamara, John H., Danbury.
Meunier, Frank, E. Hartford.
Milne, George B., Bockville.
Moran, John C., Hartford.
Moroney, John F., Meriden.
Pachl, John S., New Haven.
Palmer, John A., Torrington.
Prior, E. P., Plainville.
Purtill, Joseph, Pawcatuck.
Reynolds, Charles A., Willimantic.
Shipman, Thomas H., New London.
Stowe, Lewis F., Milford.
Taft, Henry R., Norwich.
White, Herbert P., Groton.
Wiltse, James R., East Haven.
Woodward, A. P., Danielson.

OUTSIDE OF NEW ENGLAND

Dougherty, Thos. F., New York City (Ex-Asst. Chief).

Associate Members at the Annual Convention of the New England Fire Chiefs' Association

MAINE

McCarthy, John J., Lewiston.
Wallace, Wm. W., Portland.

NEW HAMPSHIRE

Tucker, Arthur P., Kingston.
Putney, Philip M., Manchester.

VERMONT

Burt, George C., Burlington.
Carty, Wm. E., Burlington.
Duso, Carmi J., Enosburg Falls.
Melham, M. F., Johnson.
Whalen, Richard T., Burlington.

MASSACHUSETTS

Abbott, Wm. F., Boston, Mass.
Alger, Fred B., Middleboro.
Allen, E. W., Medfield.
Angier, Everet L., Newton.
Austin, George W., Boston.
Barker, John J., Boston.
Belknap, Harry, Boston.
Blanchard, Arthur H., Cambridge.
Burnham, Frederick E., West Medway.
Carlow, Harry, Taunton.
Chapman, Charles "Sandy," Revere.
Charnock, P. C., Boston.
Corbett, George W., Arlington.
Corcoran, Wm. B., Belmont.
Cowles, A. Lee, Boston.
Creaser, L. J., Boston.
Curtaz, Chas. J., West Roxbury.
Day, John H., Lynn, Mass.
DeCourcey, Harold M., Winchester.
Diebel, Andrew F., Cambridge.
Fales, Howard A., West Medway.
Galvin, Thomas F., Lawrence.
Geyer, John, Chelsea.
Gillis, Augustus C., Arlington.
Gorham, Joseph T., Boston.
Grant, F. M., Newton.
Gravelle, Charles L., Woburn.
Habermann, R. J., Boston.
Haddock, Henry, Lynn.
Hutchins, Horace W., Jr., Somerville.
Hyland, D., Ware.
Keane, James M., Arlington.
Lindh, Arthur E., Boston.
Looney, Daniel J., Boston.
Lovell, Harry J., Boston.
Many, Robert, Boston.
Maxwell, Albert C., Reading.
McCarthy, E. J., Newton.
McCarthy, Justin A., Boston.
McGonigle, Michael, Boston.
McLaughlin, J. A., Boston.
Molloy, James E., Woburn.
Morley, George E., Newton.
Newhall, Terry A., Lynn.
Pratt, Herbert K., Bridgewater.
Rustic, J. B., Boston.
Rogers, Roland D., Chicopee.
Scully, John J., Boston.
Shaw, M. A., Middleboro.
Smith, Charles T., Cambridge.
Steere, Buston, Springfield.
Taft, Frank, Boston.
Tracey, Hubert W., Boston.
Williams, E. W., Lynn.
Williamson, Edw. E., Boston.
Wood, Philip A., Boston.
Wood, Robert M., Boston.
Burchard, John C., Little Compton.
Charbonneau, Chas. E., N. Providence.
Nichols, Leon A., Barrington.
Patt, Everett I., Central Falls.

RHODE ISLAND

Fogarty, Michael, N. Providence.

CONNECTICUT

Fitzgerald, Timory J., Middlebury.
Glenn, Russell A., Bridgeport.
Meaney, Leon R., Greenwich.
Potter, Stuart M., Sound Beach.
Russell, Wm. G., Waterbury.
Sanger, John J., Sound Beach.
Sturges, Wm. F., Ridgefield.
Warren, Ira A., Danielson.

OUTSIDE OF NEW ENGLAND

Bradbrook, G. E., New York City.
Dwyer, John T., New York City.
Fenner, D. C., New York City.
Green, Joseph H., New York City.
Rankin, Joseph P., New York City.
Schellin, John C., Wooster, Ohio.
Sullivan, A. G., New York City.
Taylor, Geo. F. C., New York City.

Texas Holds Record Short Course

The fifth annual school for firemen was held at the Agricultural and Mechanical College, College Station, Tex., on July 16 to 18, under the auspices of the State Firemen's and Fire Marshals' Association of Texas, and conducted by the Department of Chemistry and Chemical Engineering of the College. The Director of the Firemen's Training School was H. R. Brayton, Professor of Organic Chemistry of the College, and the Field Instructor of the school was Chief G. F. Williams.

Every man registered in the General Section completed drills covering the following major subjects, with the directors mentioned:

Hose Lines—Asst. Chief R. E. Akin, Drill-Master, Beaumont, assisted by a drill squad from that department.
Ladders—Battalion Chief J. M. O'Brien, Drill-Master, Fort Worth, assisted by a drill squad from that department.
Salvage—District Chief W. J. Kramer, Drill-Master, Dallas, assisted by a drill squad from that department.
Pumps—Capt. J. H. Boone, Engineer, El Paso, assisted by a drill squad from that department.
Small Tools—Battalion Chief E. B. Earnest, Drill-Master, San Antonio, assisted by a drill squad from that department.
First Aid—Ass't. Chief Lee P. Harrington, Drill-Master, Waco, assisted by a drill squad from that department.
Fire Prevention—Ass't. Chief S. E. Hansen, Fire Marshal, Dallas, C. L. Ligon, Fire Marshal, Fort Worth and E. L. Mitchell, Dallas, National Board of Fire Underwriters.
Instructor Training—Prof. E. L. Williams, Head of Department of Industrial Education, A. & M. College and G. H. Fern, Supervisor of Vocational Education, Austin.
Knots and Hitches—Drill squad from the San Angelo and Wichita Falls departments. This drill will be run in connection with ladder drills.

The drills were run continuously during the two-and-a-half-hour periods, mornings and afternoons. All the men registered for the General Firemen's Section received as part of their regular drills a three hour course in general first aid problems. There were also two special courses in first aid for those desiring to specialize in that subject.

There was a full program in the General Section covering the full four days of the school and including a number of special papers on fire-fighting and fire prevention subjects by well known Chiefs and other specialists.

There were enrolled the largest classes of men and cities the school has ever had, the final registration showing 467 men present, representing 195 cities.

June Fire Losses $20,005,692

June fire losses in the United States were 7.29 per cent lower than the losses for June of the previous year, according to tabulations of the National Board of Fire Underwriters. The following tabulation shows the losses for the first six months of 1932, 1933, and 1934:

	1932	1933	1934
January	$39,224,783	$35,547,565	$28,002,583
February	39,824,622	36,661,481	31,443,484
March	49,189,124	35,321,248	31,312,359
April	43,822,233	27,825,970	22,028,943
May	39,270,524	24,338,714	25,271,459
June	34,338,670	21,578,609	20,005,692
Total 6 months	$245,669,956	$181,273,587	$158,064,520

Large Forest Work Program

A vast system of truck trails, telephone lines and other fire protection improvements over large sections of the timbered lands of the United States, covering more than 500,000,000 acres is now under way. In past years losses were caused estimated from $37,500,000 to $100,000,000 each year.

Roy Headley, Assistant Forester, Forest Service, and Chief of Operations, said:

"Because of the combination of dangerous fire conditions and carelessness of smokers and campers, the season has started off with an unusually large number of man-caused fires, fortunately kept small by prompt action. The situation is one that calls for vigilance, preparedness and action."

All emergency relief workers are tied directly into the forest-fire plan of the area in which they are working. The Forest Service of the Department of Agriculture, which administers the national forests and cooperates with the states in protecting state and private forest lands has developed a large organization. Even the Indians working under the supervision of the Office of Indian Affairs in Emergency Conservation forest camps are held in readiness for fire duty. The forest workers on private land projects are also subject to fire call in emergencies.

A recommendation was made that the pay of members of Toledo, Ohio, Fire Department be cut from fifteen to twenty-five per cent to avert reductions in the personnel.

B. O. Hargrove, Chief of Birmingham, Ala.

Chief B. O. Hargrove, of the Birmingham, Ala., Fire Department, writes that he is a strong believer in the intensive training of members of the fire service, and intends to make the drills and training of the men of his command in all phases of fire prevention, fighting and inspection real and thorough.

Chief B. O. Hargrove

Chief Hargrove was appointed on January 15 last to succeed Chief J. L. Akin, who resigned after a period of thirty-three years service in the department, ten years of which were as its head.

Chief Hargrove was born and raised in Alabama and received his education in the public and normal schools of the state. He entered the Birmingham Fire Department, at the age of twenty years, on January, 1907.

His first promotion, to the post of Captain, came to him in November 1912. He was advanced to the position of Assistant Chief in October, 1922. He served in this capacity for nearly twelve years, when his appointment as head of the department became effective, on the resignation of Chief Akin.

Bladholm Heads Colorado Firemen

Edward M. Bladholm of Englewood, was elected President of the Colorado State Firemen's Association at the annual convention held at Canon City, July 2-5. The other officers are Jewel Harrison, Julesburg, First Vice-President; E. B. Mulvihill, Palisade, Second Vice-President; Robert Johnson, Lafayette, Third Vice-President; Clinton Turnbull, Denver, Secretary; Ernest E. Anderson, Littleton, Treasurer. The next convention will be held at Loveland some time in June.

William Ziegler Loses Appeal

William Ziegler, for nineteen years Chief of the Hackensack, N. J., Fire Department, lost his appeal suit before the Supreme Court.

Last year, shortly after the municipality adopted the city manager form of government, the offices of Chief of Fire Department and Chief of Police were abolished as an economy move and the control of both departments was given to a Director of Public Safety.

Chief Ziegler contested the action on the ground that he was an exempt fireman and an honorably discharged veteran. He argued that since his position was created by a city ordinance, it could not be abolished by a resolution.

Justice Joseph B. Perskie, in the opinion, said that the change resulted in a saving of $30,000 a year and produced "greater efficiency and harmony in both departments and has put a stop to waste and extravagance in either or both of the departments."

Malt and Barley Dusts Prove Dangerous

Malt and barley dusts have received little attention until the recent investigation of a violent dust explosion in a malting plant at Buffalo, N. Y., which caused two deaths, injury to fourteen firemen and a property loss of $79,000. Dr. David J. Price, Chemical Engineering Division, U. S. Department of Agriculture, said that this dust danger must not be ignored.

Samples of barley and malt dusts in the various stages of handling, storage, and grinding were collected and tested soon after the Buffalo explosion. They were explosive, like other grain dusts.

The malting plant explosion in Buffalo indicates the further possibility of malt dust explosions during malt grinding operations in the brewing industries and emphasizes that the brewing industry needs to learn the measures developed by the Bureau of Chemistry and Soils for dealing with dust explosion hazards during grain grinding operations, says Dr. Price. It also emphasizes the value of periodical inspection of industrial plants where combustible dusts are created during manufacturing operations.

Dr. Price says another danger which has cost the lives of many firemen while fighting factory fires is caused by throwing powerful streams of water into accumulations of dusts, thus raising clouds of combustible and explosive dust. Removing powdered materials from storage bins is also dangerous. He urges special training of firemen in fighting this hazardous type of factory fire, including thorough familiarity with the information which the U. S. Department of Agriculture has made available on dust explosions.

Chief Tamblyn of Aberdeen Retires

William Tamblyn, Chief of the Aberdeen, Wash., Fire Department and a member of the service for thirty years, retired on a pension at his own request. He is the first person to retire since the pension fund was established. Chief Tamblyn joined the volunteer department in 1904 and when the paid department was formed in 1908, he was a charter member.

Fire Endangers Meriden Business Area

One man was killed, property valued at $250,000 was damaged and four families were left homeless as the result of fire which completely destroyed the Lyon & Billard Company's coal and lumber plant on Hanover Street, Meriden, Conn., on August 5. It was the most damaging conflagration in the history of this Connecticut city.

Nine other fires in houses on five streets, some of them as distant as a half mile from the main blaze, were burning fiercely at one time as a west wind scooped up hundreds of burning brands from the lumber plant inferno and rained them upon the roofs of frame houses in the East Side of the city. The Lyon & Billard plant is located in the central section of the city along the tracks of the New Haven Railroad.

Much of the business center of Meriden was endangered.

It was at one of these several individual blazes that a man fell from the roof of the veranda while helping to fight the flames, and was killed by the fall.

Ten of the company's buildings, the entire plant except the main administration building, were destroyed. Several nearby cities and towns responded to a call for assistance sent out by Chief John F. Moroney. Chief Henry H. Heitman, of Waterbury, responded with nine men, while Chief William Noble, of New Britain, arrived with a crew of eight from that city. A piece of apparatus and 35 men from Westfield aided the Meriden forces, while South Meriden responded with a pumper and 30 members of its volunteer force.

The fire was discovered at 2:31 p. m. by a passerby, who ran to the Butler Street Station, one block away from the Lyon & Billard plant, and notified the firemen. In the meantime an alarm was received from a street box. When Chief

Ruins of the Coal and Lumber Plant at Meriden, Conn.

Moroney arrived he immediately ordered a general alarm, sounded which brought out the entire fire-fighting force of the city. After fighting through dense clouds of smoke and pouring tons of water from lines which surrounded the plant on all sides, the blaze was brought under control at 6:40 p. m.

THOMAS F. MAGNER.

Ex-Chief Partenheimer Dead

Philip Partenheimer, for nearly thirty-three years Chief of the Greenfield, Mass., Fire Department, died at his home at the age of eighty following a lingering illness. He was considered one of the oldest firemen in point of service in New England when he retired in 1932.

He was a native of Greenfield and was born April 14, 1854. After serving as a member of the old Eagle Company which was provided with hand pumps, he was promoted to various department offices and finally became Chief in 1899. At his retirement in 1932, he was presented with a gold badge and was made Honorary Fire Chief. At one time he was an officer of the International Association of Fire Chiefs.

The Late Ex-Chief Partenheimer

Farmers Warned

A new fire hazard is being created on farms of Wisconsin. As a substitute for the failing hay crop, such plants as soy beans, cow peas, Sudan grass, millet, sorghum and fodder corn are being raised. The Wisconsin Industrial Commission points out that the storage of such crops may result in barn fires from spontaneous heating unless the crops are carefully cured.

West Virginia Holds Short School

More than two hundred persons attended the fourth annual Fire Service Extension School of West Virginia held July 30-August 2 at Morgantown, W. Va., under the auspices of the state university, State Fire Marshal, and the West Virginia Inspection Bureau.

To facilitate instruction the registrants were divided into three groups.

Harry K. Rogers, better known as "Smoky," and J. W. Just, of the Western Actuarial Bureau, had important parts on the program as well as Robert B. Criswell, of the Ohio Inspection Bureau. Mr. Criswell gave a number of demonstrations of common fire hazards.

Prof. Lewis V. Carpenter, in charge of the school, was well pleased with the way the program was carried out. He announced that the 1935 school will be held July 29-August 1.

The annual meeting of the West Virginia Fire Chiefs' Association was held in connection with the school. John R. Hare, Chief of Morgantown, was elected President; Gray Marsh, Weston, Vice-President; C. J. Powell, Romney, Secretary-Treasurer; J. L. McLane, Charleston, and J. W. Beckett, Logan, Directors. Plans were made for a drive to increase the membership of the association.

Ketchikan, Alaska, adopted an ordinance for a full time Chief, Captain of Fire House and Captain of Fire Boat.

A vandal poured acid over the fire hose of Central City, Ia., and damaged all the hose. A bottle containing sulphuric acid was missing.

Insurance policies being written for property near Alliance, Ohio, but outside of the city limits, have a clause that the insurance company will pay the Fire Department for its services in addition to settling for the property damage. A local ordinance provides that the city cannot make outside runs unless a specified fee is paid.

Fire College Held at Daytona Beach

The fifth annual Florida Fire College was held at Daytona Beach, Fla., July 9-11. Chief D. W. Brosnan, Albany, Ga., gave instruction in salvage work and building inspections; Rea Johnston, Assistant Chief, Daytona Beach, drill evolutions; J. R. Larabee, Assistant Chief, West Palm Beach, fire truck maintenance and operation; Frank King, Mine Safety Appliances Company, use of gas masks and respirators. Others on the teaching staff included Harry Lee Baker, State Forester; George L. Swan, National Board of Fire Underwriters, New York City; G. S. Stuart, Jacksonville; H. D. Cutter, Jr., Atlanta. There were nearly 150 firemen and guests registered.

Observing the good results obtained by this college, a group of Georgia firemen are now trying to have a fire college established similar to the one held at Daytona Beach. If the plans are successful, the Georgia school may be held at Atlanta.

Monorail System Granted Concession

The rate making committee of the New York Fire Insurance Exchange has granted a reduction of thirty-five cents a hundred on all insurance premiums covering fire risks on piers, wharves or docks that are equipped with an approved monorail nozzle system for fire fighting under the piers.

The action of the rating committee will result in a saving of many thousands of dollars in insurance premiums. The only approved monorail nozzle for fire fighting under piers and docks is that manufactured by the Conran Standpipe Company, Inc., 26 Ferry Street, New York City.

The monorail nozzle system was approved a year ago by the laboratories of the National Board of Fire Underwriters. Its inventor is William F. Conran. The need for an improved type of fire protection equipment on piers was demonstrated at the fire on the $1,000,000 pier of the Cunard line at the foot of West 14th Street, in the Spring of 1932. It was one of the Chelsea docks built by the City of New York and was totally destroyed. The fire originated underneath the pier and spread extensively because of the inability of the Fire Department to effect quick access to the substructure.

The allowance made by the rate making committee on all installations of monorail nozzle systems for protection from fire will result in a saving of $3,500 a year on premiums paid on piers of $1,000,000 value.

WM. JEROME DALY.

Montana Firemen Hold Convention

Many timely papers were presented at the forty-third annual convention of the Montana State Firemen's Association held at Dillon, Mont., July 19-21. Some of the topics follow:

"Let's Get a State Civil Service Law Enacted," by President Arthur L. Quinn.

"First Aid Demonstrations," by Dr. Routledge.

"Inside a Burning Building," Chemical demonstrations by Dean W. M. Cobleigh, Montana State College.

"Problems of the Fire Marshal," by Neil E. Flaherty, State Fire Marshal.

"Delusion of Fire Escapes," by Chief Henry Quane, Anaconda.

"The Relation of State Firemen to Licensed Insurance Companies," by John J. Holmes, State Auditor and Commissioner of Insurance.

"Unity Between Paid and Volunteer Fire Departments," by A. L. Quinn, Missoula.

"Fire and Prevention in Hotels and Schools," by Dr. R. E. Albright, Normal School, Dillon.

"Resumé of State Arson Law," by William G. Brooks, Spokane, Wash.

"Inspections," by Thomas Lloyd, Board of Fire Underwriters, Butte, Mont.

Frank C. McFadden, Dillon, was elected President; W. O. Matthews, Bozeman, Vice-President; D. E. Moser, Bozeman, Secretary-Treasurer; Directors, Arthur L. Quinn, Missoula; Fred Noble, Butte, and George W. Dewar, Havre.

Several automobile trips were made to points of interest, in addition to a fireman's dance and a banquet at the Hotel Melton. The 1935 convention will be held at Kalispell.

Middleboro, Mass., voted to purchase two pumpers.

A new fire station will be erected in Schenectady, N. Y., financed by a $55,000 PWA loan and grant.

Ray Lemoin, Fire Chief of Richmond, Cal., from 1914-1924, died at a hospital in San Leandro as the result of heart disease. A few months ago he was appointed Fire Chief of the hospital in San Leandro.

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Brookline, Mass.

CHIEF JOHN J. TOWEY
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Newark, N. J.

EX-CHIEF J. J. MULCAHEY
Recording Secretary-Treas.
Yonkers, N. Y.

JAY W. STEVENS
Executive Secretary
San Francisco, Cal.

JAMES T. O'DONNELL
Chief of Salvage Corps
St. Louis, Mo.
Director

EX-CHIEF R. L. SMITH
Past-President
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CHIEF PETER STEINKELLNER
President
Great Lakes Division
Milwaukee, Wis.

EX-CHIEF M. M. TAWNEY
Director
Harrisburg, Pa.

CHIEF R. A. BOGAN
Director
Baton Rouge, La.

CHIEF LOUIS ALMGREN
Director
San Diego, Cal.

CHIEF DANIEL B. TIERNEY
Director
Arlington, Mass.

CHIEF F. C. PFAENDER
Director
Winter Haven, Fla.

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CHIEF WALTER F. ISRAEL
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Annex Fire Dept.,
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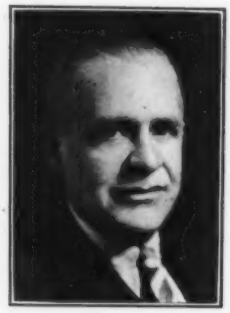

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Federal Electric Co.

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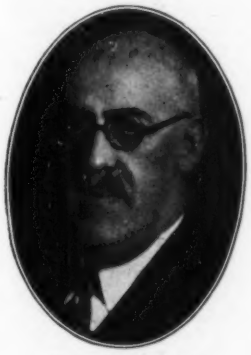

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Northern Pump Co.

J. C. SCHELLIN
Secretary & Manager
Akron Brass Mfg. Co.

C. B. ROSE
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A. G. SULLIVAN
Sales Mgr. Motor Apparatus
American La France &
Foamite Industries

FIRE DEPARTMENT EQUIPMENT MANUFACTURERS

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

CALLING OUT THE VOLUNTEER FIREMEN

UNLIKE the paid departments where the firemen and officers are always at hand in the case of fire, volunteer firemen must be notified of a fire whenever an alarm is received. Some departments, which have but a few volunteer fire-fighters, call the men individually by 'phone. The quickest way is to sound some kind of signal which can be heard in every part of the community.

When using a siren or whistle, it is not wise to use a system of signals that increases the time for each round. Special signals must also be employed for calling out greater than the normal first alarm response.

The volunteer department is often limited as to equipment, and possibly men. There should be some arrangement with nearby departments so that assistance could be given if the fire is in danger of getting away from the local department. The value of such a plan has been demonstrated time and time again.

In the box on this page is the problem that is treated in this issue. The figure after the name of a town is for the latest population. In the box on the following page is the question that will be presented in the next issue. Should you have some comments that you would like to add to the next discussion, you are invited to write to the "Round Table Editor," FIRE ENGINEERING, 24 W. 40th Street, New, N. Y.

Discussion of the Question

Rodney Gordy, Chief, Seaford, Del., 2,500: We blow three long blasts with our siren for all fires as I have found this is all that is necessary. When a call is from our rural district we always tap the fire bell a few times after the siren blasts. I have a phone installed in my bedroom for night calls as I live next door to the fire house. When it is a call from our rural district I do not call the company out by siren but instead get in touch with two or three men by telephone, as most of our calls are for chimney fires. I summon the firemen by siren when the fire is in another town and send about ten men and a triple combination pumper to their assistance.

We are not troubled with this problem of not having enough men on hand. We carry an active crew of thirty men and they are required to attend eighty per cent of the fires. If firemen are sick or out of town they are excused. If they do not take an active part in the department and make their percentage they are automatically dropped at the end of the year and a reserve man is moved up. All men pay annual dues except the thirty active men.

If help is needed from a neighboring town the Chief communicates with the Chief of the department he is calling by telephone, using a code. Our department is all volunteers. We have two triple combination pumpers, an organized first aid crew (the only one in the county), an inhalator and all equipment necessary to adminster first aid. We also have a very fine salvage crew.

T. B. Henley, Chief, Belzoni, Miss., 3,000: We have a siren and air whistle for summoning firemen. The town is divided into fire districts about the same area as would be covered by a fire box. The business district is covered by an Edwards' Fire Alarm system.

When a greater number of men are required for fighting a fire, a second alarm is sent in. When nearby towns are called upon for help we telephone to them. Our department has three paid firemen and eight volunteers who receive $2.50 per fire.

A. T. Bunker, Chief, Buchanan, Mich., 3922: We have no system of signals, when the siren blows we go. If the firemen do not respond to alarms and I need more men, I hire them from the side lines.

We have no arrangements with other departments. If we think we need help, we phone. Our department is entirely volunteer with ten men and a Chief. We have called for aid four times in thirty-four years and only once did they help. Our department is entirely volunteer with ten men and a Chief.

J. E. Rainwater, Chief, Cedartown, Ga., 8,124: Fires are reported by a telephone that is not used for anything else, and the siren is turned on from fire headquarters.

The Central Office reports a fire to the Chief, and the volunteers in turn call central to find out where the fire is, when they hear the siren alarm.

We have 18 volunteers and two paid drivers who are on the job or at the Hall twenty-hours per day.

Edward Holmes, Chief, Carterville, Ill., 2,866: We use one blast of the siren for each ward. We are members of the Egyptian Fire Fighters, which has a membership of most of the Fire Departments south of the B. & O. Railroad in Illinois. When we have a fire we can't handle the Chief calls the nearest department and they in turn call the next department. Each department "backs" up the other till the fire is under control. About a year ago we had a fire during a high wind that required the aid of three outside departments.

Our Department is volunteer. The Chief is paid by the month while the men receive pay only when called to a fire. The equipment is stored at our garage and there is someone on duty at all times, so in that respect the department is about the same as though it was a paid department. When an alarm comes in they start out. The men come to the fire if they don't pick them up as they go by.

J. L. Gray, Chief, Juneau, Alaska, 5,000: We have the Gamewell fire alarm system connected with the central telephone system. When an alarm is turned in, the bell hits, the horns sound and each fireman is given six straight rings by telephone at his place of business at day and his home telephone is sounded at night.

Juneau, Alaska, is one town on the Pacific Coast that has not burned down, owing to its efficiency since it was organized in 1898. Fire protection in Juneau has always been looked after by the different City Councils and Fire De-

HERE IS THE PROBLEM

What system of signals do you employ to cut down on the number of blasts necessary when using the fire siren?

When you have a fire which requires a greater than normal response, how do you notify the volunteer firemen?

Have you an arrangement with nearby departments for assistance, and how are such calls handled?

Is your department completely volunteer?

partments. Our equipment is always kept up to that of any city, and we pride ourselves of being one of the best equipped for fire protection.

We have two companies of fifteen members each, all volunteers and two paid truck drivers and a Chief who are each paid a small salary.

M. S. Ball, Chief, Florence, Col., 2,475: Our siren is operated by hand. There are three wards in the city. In sounding an alarm we sound one blast for ward one, two blasts for ward two, etc. An out-of-town call is four blasts. Each fireman gets the location from the central telephone office.

Our fire company is wholly volunteer, there being only one paid man, the Chief, who stays at the city hall and fire station. There are twenty members and they all respond to every alarm. There are sleeping accommodations at the City Hall for two of the volunteer besides the Chief.

The calls from neighboring towns are handled by telephone, there being someone at the City Hall day and night to take care of all such calls.

Henry Dietrich, Chief, Durango, Col., 5,500: We have no siren in service other than on our apparatus. However, we have a tower-bell which is connected up with our Gamewell Alarm system which indicates the box from which the alarm has been sent in from. This bell can be heard from most any place in our town.

We have no volunteers: the "off" shift is notified by telephone on all alarms, and in case more men are needed to handle the situation, citizens are employed and paid for their work. Our department consists of five members. We have no nearby departments which we can call for aid, if such should be needed.

Allen F. Payson, Chief, Camden, Me., 7,000 (summer): We maintain a compressed air outfit hooked up with the Gamewell street box system.

We handle all alarms other than general with a force of five or six men. When more help is needed we pull a box number which is repeated four times. This gives us a crew of forty men at short notice.

We have the mutual aid plan with all communities within a 30-mile radius and we hope to make this aid plan state-wide. All calls for assistance are sent by telephone direct to the fire stations. The Chief is a permanent man and we have 44 call men.

K. A. Young, Chief, Mount Rainer, Md., 4,300: We have a rule not to blow the siren more than two blasts. When help is required we call on another company in our county. We have an arrangement with our nearest neighboring company that we answer all their alarms and they do likewise for us. We have one button in the telephone exchange that blows both sirens at the same time. Our department is completely volunteer.

Chas. A. Moyer, Chief, Winslow, Ariz., 5,500: Winslow has no system of signals outside the call on the telephone to the station and firemen. The siren is used all the way through the streets to notify cars and pedestrians to stop.

Our fire trucks is in good condition, our men well trained, we have good water pressure and the morale of the department is high. These things aid materially in keeping a department efficient. Our department is completely volunteer.

Theo. K. Lee, Chief, Benson, Minn., 2,100: When required to call the firemen to a fire, we have a telephone fire alarm system, to every fireman's home that is operated from the telephone office. We also have a fire gong at the power house and a fire steam whistle.

We have twenty men in our Fire Department and at every fire call every man responds for duty at once. Our department is entirely volunteer. We will assist our neighboring villages if called upon.

G. H. Wheelock, Chief, Safford, Ariz., 1,700: We are completely volunteer and cover an area of about ten miles long and three miles wide. While the population of Safford is but 1,700, the area we serve has a population of about 5,000.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

What steps do you take to insure operation of equipment during cold weather?

Do you employ inspection crews to observe if the important hydrants are in operating condition?

What suggestions have you to safeguard uninterrupted fire service during severe winters?

What cold weather troubles did you have the past winter?

We use a siren but no code to summon the men to a fire. All of the volunteers respond to every alarm and if the call is for either of the adjoining towns, some of the firemen remain in town with other apparatus.

C. M. Long, Chief, Hollister, Cal., 4,200: I use the dial system manufactured by the Gamewell Company on which the number of blasts can be set from one to four. We are at present using the 2-round system.

The large bell system is used whenever we need additional help.

In the event that we would have to have help from nearby towns or villages we would telephone to the fire station. Up to the present time we have never had to call on neighboring fire companies for assistance. Our department is all volunteer but for two paid men.

E. J. Hutchinson, Chief, Boothbay Harbor, Me., 2,000: We have a compressed air whistle for fire alarms and use a siren only as a traffic signal when going to and returning from fires.

All our men respond on the first alarm. We have an agreement with two nearby towns for assistance and have a special signal system laid out. All call men are paid by the year and 75c per hour at fires.

Frank Quintini, Chief, Bay St. Louis, Miss., 3,724: We use the ward system—1 blast for each ward. We have four wards and in that way the 4th ward gets four blasts on the siren.

We always have a sufficient number of volunteers without calling for more.

We have three paid men who work 8-hour shifts, the remainder of our department is volunteer.

H. J. Youngblood, Chief, Fernandina, Fla., 3,023: We do not use the siren for blasting. We use the Gamewell Fire Alarm Telegraph System, and we have a large bell which taps in unison with station bell. We use a siren with each alarm in case firemen don't hear the bell.

We have seven men in the department and one negro who stays at the station to answer telephone calls, keep equipment clean and drive the hose-truck. All members respond when possible. The first one reaching the station drives the 750-gallon American-LaFrance apparatus. We always have enough bystanders to help, in case of need.

Each member receives ten dollars per month and each volunteer is paid according to the work done.

G. R. Robinson, Chief, Yuma, Ariz., 5,000: We use three coding sirens each located in different parts of the town. Sirens are connected to a Gamewell alarm system.

All firemen can hear the siren at all times. If we need more help we have a man at the station, who can summon more men.

We have no nearby departments which we can call. The nearest department in Arizona is 200 miles away and the nearest in California is 65 miles, so we have to fight our batles alone. We have five full paid men—the rest are volunteers.

K. K. McDonald Chief, Caldwell, Kan., 2,000: We use an electric siren for summoning men to fires but employ no signals. If additional help is needed we go in the crowd that usually assemble at a fire and pick out the ones wanted.

We have no arrangements with other cities. If help was needed, however, we would call by telephone. We would go to their aid if called. The firemen in our department are volunteer.

L. A. Haley, Secretary, Gretna, La., 3,000: We have no fire alarm sirens. We ring the bell in fire truck house repeatedly. We are in the 1st ward of Gretna and when necessary we call on Crockett from the 2nd ward (population of about 8,000). Our department is completely volunteer.

T. L. Newbern, Chief, College Park, Ga., 7,500: We use an electric siren and code for summoning the men to the fire and should additional men be needed, we notify them in the same manner. We telephone a nearby town in the event that we need assistance at a fire. We have two paid men in our department and eight paid call men.

L. V. Rothrock, Chief, Fort Morgan, Col., 4,500: We have no system of signals. When a fire requires a greater number

than a normal response we send in a second alarm. We telephone nearby villages for assistance, if it should be needed. Our department is completely volunteer.

D. C. Long, Chief, Augusta, Ark., 2,500: We have four wards. A blast is sounded for each number, one for ward 1, four for ward 4, etc.

By repeating the alarm and by telephoning, we notify and secure additional assistance when a fire is hard to get under control and additional help is needed. This is an entirely volunteer department.

Ray Hamor, Chief, Bar Harbor, Me., 10,000 (summer): We employ no system of signals. We have a Gamewell alarm. A second alarm is sent in when a greater number of men are required for fighting a fire. We have thirteen paid permanent men and a Chief.

Graham McLane, Chief, Clarksville, Ark., 3,032: We have different blasts for different locations. When more men are needed to assist at a fire we again blow the signal. Our department is completely volunteer and the men are paid "by run."

J. T. Wilson, Chief, Providence, Ky., 5,000: We notify men of a fire by the siren on the apparatus. We blow a second alarm in two minutes if more men are needed. Calls for out-of-town assistance are handled by telephone.

Ernest Haas, Chief, Hermosa Beach, Cal., 5,000: Six long blast are sounded—and that is all when there is a fire in our town.

Should we require a greater number than normally responds to the alarm we call back to the fire house and a second alarm is sounded.

We have two towns to standby in case of need—Redondo and Manhattan Beaches. These are reached by telephone. Our department is entirely volunteer.

A. H. Clark, Chief, Lakefield, Ont., Canada, 1,189: All general alarms of fire are given by four blasts on the siren. If the first response of members is not heavy enough or the alarm is from a hazardous location, or a storm or gale is raging, I simply ask the telephone operators to repeat the alarm with an additional four blasts.

Our siren is manually operated from the telephone central and any signal on the siren with the exception of the long blast at 12 o'clock noon, indicates an alarm.

We have an agrement with our nearest city, to supply us with a pumper and a crew in case of emergency. This call must come from the Chief of the department. This also applies to calls from that city in case they might need help. We simply send a telephone call into fire headquarters in each case.

Our department, including the Chief, is volunteer. We are paid for duty only at the rate of 60 cents per hour for fires and 50 cents per hour for practices. The Brigade consists of twenty-five men, all appointed by the Chief, who holds his office at the pleasure of the village council.

Mt. Vernon Fire Department, Mt. Vernon, N. Y., 61,500: We cut our boxes to two rounds, instead of the usual four when using the fire siren.

When we have a fire which requires a greater than normal response, the volunteers are notified by putting through a company call.

We have an arrangement with nearby departments, whereby apparatus, equipment and men are sent when assistance is needed. When outside assistance is called for, they telephone fire headquarters and the Chief of Department assigns companies to aid the nearby community. Of course care must be exercised not to cripple the department by stripping it of apparatus.

Forest Fires Rage in West

Forest fires, owing to the drought and the dryness of the areas, have caused much damage in the mountain and Pacific states and in parts of Canada. Thousands of acres of grain and pasture land in Idaho and Eastern Washington have been swept by flames. Blue Creek in the Spokane Indian Reservation and the Colfax, Wash., area have been visited by severe forest fires. A thousand men have been fighting fires in North Central Washington, and winds and hot weather have made conditions critical for the fire fighters.

The small lumber town of Dorris, in Northern California, has been almost wiped out by a forest fire which got out of control. Plans are already taking shape to rebuild the town, whose loss was estimated at $300,000.

Some 5,000 acres of valuable pine timber land have been burned over in the Stanislaus National Forest of Central California. Four hundred men finally brought the fire under control, after it had taken the timber and burned over 2,000 acres of brush land.

Fires are reported at Rigaud and St. Canut, in the Province of Quebec, Canada. The Rigaud Mountain fire for a time menaced the Lourdes Grotto, Bingham Village and Bourget College. Sault Ste. Marie, Ont., and Nelson, B. C., have also had bad fires in their districts.

Long Island to Have Fire Protection Day

On Saturday, September 8, there will be held at Roosevelt Field, Mineola, L. I., N. Y., the second annual Fire Protection Day, under the auspices of the Fire Chiefs' Council of Nassau County. Each of the 125 Fire Departments serving Nassau and Suffolk Counties will be invited to be represented by delegations of officers and firemen and by one piece of fire apparatus.

The first Fire Protection Day, held at Freeport on October 14, 1933, was such a success that the Council has decided to make it an annual affair.

The purpose of the affair is to enable the fire officials to see exhibits and demonstrations of the most modern fire control and prevention appliances and to promote increased use, by the public, of fire preventive and first aid protective devices.

Space and tables will be available for exhibits in Hangar No. 2 and there will be ample outdoor space adjoining for demonstrations. The Exhibit Building will be open to the public from 9 a.m. until dark. Demonstrations will be conducted from 2 p.m.

No admission will be charged to the Field nor to the Exhibit Building, and inasmuch as the Council is an advisory body, without income, a nominal charge of $10 for each exhibitor will be made to defray expenses of the day. All demonstrations will be non-competitive, with required time for each exhibitor allotted. Wilbur E. Seaman is Chairman of the Fire Protection Day Committee, and George W. Clough, 39 Franklin Court, Garden City, N. Y., is Secretary.

Beckert and Gibson Take Long Trip

Chief Ernest Beckert, West New York, N. J., and Chief John Gibson, of Mt. Vernon, N. Y., and their wives are traveling to the Annual Convention of the International Association of Fire Chiefs at Milwaukee by way of Yellowstone Park. Leaving New York on August 1, the Beckert-Gibson party drove across the prairie to Yellowstone, where they spent a week sight-seeing, following which they headed back east toward Milwaukee and the Fire Chiefs' Convention.

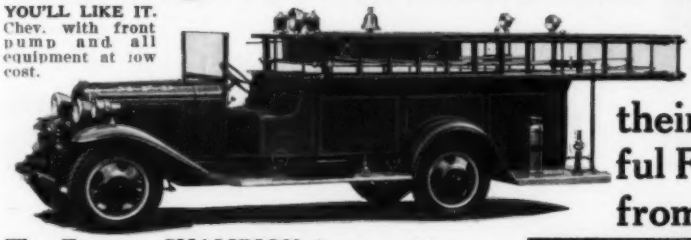
Squad Car and Ambulance Presented to Danville, Ill.

A combination rescue squad car and ambulance was presented to the Fire Department by the merchants, garage owners and physicians of Danville, Ill. It carries an H and H inhalator, patient's pad and rubber sheets, 6 chemical hot pads, 7 hot water bottles with water heater, 6 blankets, kit containing stomach pump and emetics, case containing first aid and physician's instruments, stretcher, Burrell gas mask, oxygen gas mask, asbestos suit, car fan, 2 pairs physicians' rubber gloves, pair high voltage rubber gloves, hot wire grabber, pair wire cutters, extension cords for 110 and battery current, 4 flashlights, 2 highway torches, 4 fusees, Presto tank for lighting and cutting, 2 small oxygen tanks, 4 small carbogen tanks, 1 storage oxygen tank, 1 storage carbogen tank with valves and gauges to connect to the hospital tanks, ropes and stakes as shown in the photograph for holding back crowds, etc. Members of the squad do not use the physicians' instruments but they are carried for the convenience of medical men who may come upon an accident without the necessary instruments. The rescue car is then called and the squad members assist the physician.

BUILD YOUR OWN SAVE $1000 to $2500 !!

Chicago does! Milwaukee does! and many other large Cities.

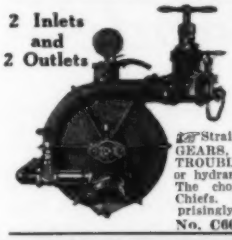
YOU'LL LIKE IT. Chev. with front pump and all equipment at low cost.



Hundreds of Towns and Villages have assembled their own trucks with Powerful Fire Pumps and Equipment! from Darley & Co., Chicago.

The Famous CHAMPION Front Drive Fire Pump $315.00

2 Inlets and 2 Outlets



A HIGH PRESSURE pump that will deliver two powerful fire streams of 500 gallons per minute.

☞Straight Direct Drive with NO GEARS, NO FEARS and NO TROUBLE. Pumps from suction or hydrants. Easily fits any chassis. The choice of hundreds of Fire Chiefs. A marvelous pump at surprisingly low cost.

No. C600. Complete $315.00

Capacity 75 Gallons Per Minute

Fits across the chassis under or back of driver's seat. Complete with piping, booster tank connections, reel connection, relief valve, gate valve, brass caps, pressure gauge, vacuum gauge and including power take-off for Chevrolet or Ford chassis.

No. C990 ..... $165.00

☞Can also be made to fit most any make chassis at slight extra charge. Our Engineers will serve you.

FIRE HOSE NOZZLES

Quickaction nozzle. Solid bronze and polished. For 1" reel hose.

No. B834. Each..... $9.95

Colt 1½" Leader Line Nozzles with shutoffs. For booster tank hose. Polished brass. ¼", ⅜" or ½" tips.

No. B918. Colt Nozzle. Each.. $10.25

Fire Department Play Pipe for 2½" hose with shut-off nozzle, stream shaper and ladder hook. In our opinion the finest nozzle made of solid bronze. Length, 18½". Any tip opening desired.

No. B888. Colt Nozzle..... $23.45

FIRE DEPT AXE for $3.40 EACH

The Underwriters' Kind

Electric Lanterns

Red, gasproof Safety Lantern.

No. C778. Each $2.19

Batteries Each 39c

Truck Bracket for this lantern. Each $1.55

Fire Truck Searchlights

Powerful searchlight for apparatus, operates from storage battery. Mounts on cowl or dash. Makes an efficient driving light. Will focus in any direction or angle. 10⅝" diam.

No. C687. With Chrome plated ring $14.50

No. C688. Socket or Cone Base for Searchlight..... 2.90

FORD STANDARD STEEL BODY

Ford or Chevrolet standard open express bodies can easily be fitted with a rear step. They will carry booster tanks, hose and plenty of equipment. You will be surprised how practical these are and how fine they look when painted and loaded with equipment.

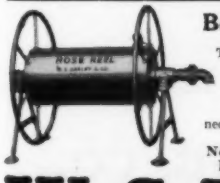
☞You can buy direct from your local dealer at a very low price. Often a used body serves the purpose just as well.

HOSE BASKETS

Capacity 200 Feet 1½" Fire Hose

Easily mounted on fire truck apparatus to carry folded Leader Line hose and nozzles. Steel construction, with perforated ends. Size 10"x23"x36¾". Capacity 150 to 200 feet 1½" hose.

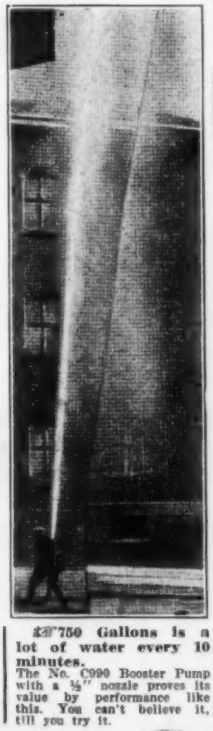
No. C934. Hose Baskets, each..... $14.50



Booster Hose Reels

This reel has a capacity of 200 ft. of 1" booster tank hose. Reels are easily mounted above booster tanks and are equipped with a special swivel joint with pipe connection to tank.

No. C935. Each..... $36.50



☞750 Gallons is a lot of water every 10 minutes. The No. C990 Booster Pump with a ½" nozzle proves its value by performance like this. You can't believe it, till you try it.

Hose Body Flood Lights

These lights are mounted on rear cross bar of trucks and floodlight the hose body and equipment. Chromium plated and swivel for use in any direction.

No. C545. Floodlights. Each..... $6.00

Highly polished brass, easily mounted.

No. 936F 8" $10.95

10" $21.10

☞3% Discount for Cash or C. O. D.

WELDED BOOSTER TANKS

Made of rustless steel to fit any fire truck body. Designed with filling trough, strainer, air vent, flanged pipe connection, etc. Larger sizes have splash partitions.

100 gallon size..... $ 81.00
200 gallon size..... 171.50
300 gallon size..... 204.50

Hose baskets or hose reels are usually mounted above these tanks.

Leader Line 1½" Hose

Made strictly to specifications, tested and labeled under the supervision of Underwriters' Inspectors. UNDERWRITERS

No. C086. Leader Hose. Per foot..... 39c

1" Rubber Reel Hose

One-inch rubber covered and rubber lined for hose reels and booster tank work. We supply a continuous 200-ft. length. Fast and easy to handle.

No. D105. Reel Hose. Per ft... 29c

UNDERWRITERS Regulation 2½" single jacket Underwriters' fire hose. Folds snugly and handles fast.

No. B219. Per ft..... 50c

Waxed Waterproof Hose

Special Fire Fighters' hose, cable cord construction of the best quality. Double jacket. 2½ inch.

No. B85D. Waterproof hose. Per ft..... 89c

Couplings are extra. We supply and attach either Underwriters' or Rocker Lug type at low prices.

W. S. DARLEY & Co.

THE BEST IN FIRE DEPARTMENT EQUIPMENT

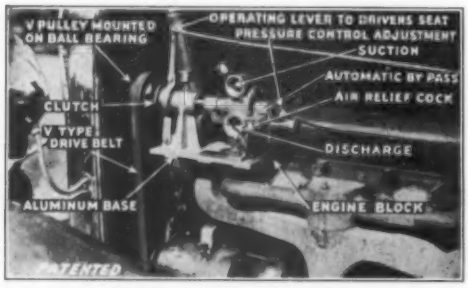
2810 Washington Blvd. CHICAGO

Darley & Co. Offer Lowest Prices—30 Days Free Trial and ☞3% Discount for Cash or C. O. D.

The PANAMA Pump in operation taking water from a Fire Hydrant and boosting the pressure to around 200 lbs. There is a 50-gallon water tank in rear compartment of car for use beyond water mains or where just a small amount of water is required for a small roof or grass fire.

PANAMA FIRE PUMPS

Economical to Install and Operate—



HERE is a pump that can be installed in less than an hour, on most any standard make of car. Panama Pump prices are so reasonable that every volunteer department can now have a really efficient pumper. What's more, these pumps can be installed on the chief's and assistant chief's personal car. Used by Forest Rangers and smaller fire companies with excellent results. Write now for more complete information and price.

PANAMA PUMP COMPANY
PANAMA CITY, FLORIDA

PANAMA Pumps will deliver up to 30 G.P.M. and 125 lbs. pressure. Fire Chiefs who use them have found that with a 50-gallon tank of water this Unit is sufficient equipment for more than 50 per cent of their fires, effecting a tremendous saving in the wear and tear on the larger and more expensive equipment and hose.

PANAMA Pumps are shipped complete with automatic by-pass and pressure control, clutch and clutch lever all mounted on an Aluminum base, together with necessary bolts for attaching and the longer belt. They can be installed in 30 minutes or less, as there are no holes to be drilled or alterations of any kind to be made.

Reelite

REG. U.S. PAT. OFF.

A Hand-Operated Take-Up Reel for Electric Cable

Many of the fire departments in cities throughout the United States are adopting the hand-operated Reelite for use on lighting trucks, as shown in the illustration below.

Floodlights may be removed from the truck and current is furnished to them from the lighting plant through the cable, and will reach within any radius according to the number of feet of cable with which the Reelite is equipped. Write for further information.

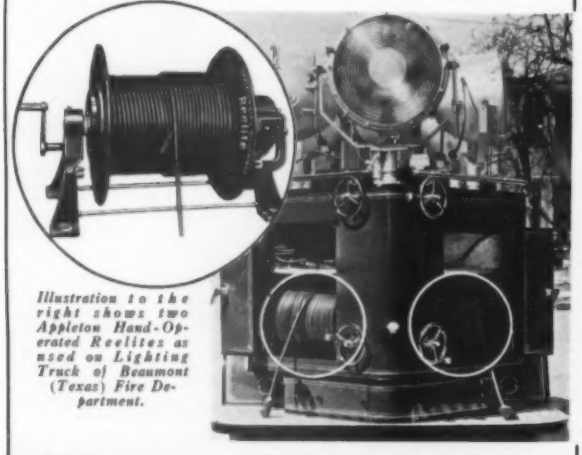


Illustration to the right shows two Appleton Hand-Operated Reelites as used on Lighting Truck of Beaumont (Texas) Fire Department.

APPLETON ELECTRIC COMPANY
1752 Wellington Ave. - - Chicago, U. S. A.
New York—150 Varick St. Los Angeles—340 Azusa St.
San Francisco—655 Minna St.
St. Louis—420 Frisco Bldg. Detroit—7724 Woodward Ave.
Philadelphia—530 Arch St.

WHEAT SPOTLIGHT

An
OFFICERS LIGHT
at
$17.50
(Chrome Plate Finish)

RECHARGEABLE—Which means *reliability* and *cheap* to operate (not a dry cell type requiring constant battery renewals).

Now equipped with a double filament bulb. This extra filament, which can be instantaneously switched into service by throwing the Toggle Switch, removes the chance of being suddenly left in the dark.

KOEHLER MFG. CO.
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Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

S. A. E. Formula for Horsepower

To the Editor:

In the latest edition of your book on "Simplified Fire Department Hydraulics" mention is made of ascertaining "horsepower" by the method of Bore X Bore X number of cylinders divided by 2.5.

Recently the question came up as to what the 2.5 represents. Some are of the opinion that it represents a constant or a factor as in many other problems, while others contend that it is a factor derived from the stroke of the piston or "throw" of the crank.

Will you please explain the answer to this question.

G. P.

Answer: The horsepower of a gasoline motor, 4-stroke cycle type, is found as follows:

$$\text{Horsepower} = \frac{\text{M.E.P.}}{4} \times 3.1416 \times \frac{D^2}{4} \times N \times 1{,}000 \times \text{M. E.} \div 33000.$$

M.E.P. is mean effective pressure in each cylinder; 3.1416 $\times \frac{D^2}{4}$ is the area of the piston in square inches; N the number of cylinders; 1,000, the speed of piston travel in feet per minute; M.E. the mechanical efficiency of the engine; 33,000 the number of foot pounds per minute in one horsepower. Dividing M.E.P. by the figure 4, in the formula, gives the proportion of power strokes to the total number of strokes. In other words, every fourth stroke is a power stroke, and so we divide the mean effective pressure by 4 to find out what proportion of travel of the piston is under power.

The S.A.E. formula for automotive horsepower assumes a piston speed of 1,000 feet per minute; it also assumes that the mechanical efficiency times the mean effective pressure is 67.2. Both of these figures were taken as averages at the time the formula was developed.

Substituting the above values in the formula we get

$$\text{H.P.} = \frac{67.2}{4} \times \frac{3.1416}{4} \times D^2 \times N \times 1{,}000 \div 33{,}000.$$

Simplifying this formula we get

$$\text{H.P.} = \frac{16.8 \times .7854}{33} \times D^2 \times N$$

$$= \frac{13.19}{33} \times D^2 \times N$$

$$= \frac{1}{25} \times D^2 \times N$$

$$= \frac{d^2 \times N}{2.5}$$

Thus is derived the figure 2.5 in which you are interested.

Boil-overs and Foam Stream Range

To the Editor:

Will you kindly answer the following questions?

1. Will gasoline in open tanks boil over when heated?
2. Do foam streams have long reach?
3. How many gallons of foam solution will one pound of foam powder ordinarily make?

Thank you for any information furnished.

H. J. McG.

Answer: Gasoline in open tanks will not ordinarily boil over when heated. The gasoline boils and unless the tank is filled very near the top, it is not likely there would be any danger of any of the gasoline spilling over the top of the tank. Oil tanks will boil over, but this is usually caused by the presence of heavy "ends" in the bottom of the tank. When the heavy "ends" become heated, they usually produce boil-overs, and in a very vigorous manner.

With regard to the reach of foam streams, the following figures, based upon actual tests, will give you an idea of their range.

These tests employed 1¾-inch nozzles.

Pressure at base of Pipe in Pounds per square Inch	Maximum Range in Feet
5.5	70
6.0	73
9.5	92
12.	105

One pound of foam powder mixed with one gallon of water gives eight gallons of foam, approximately.

Extinguisher Fluid—Painting Ladders

To the Editor:

Will you kindly answer the following questions?

Is there any kind of fluid that could be put in fire extinguishers to prevent people from using same to clean their clothes?

Is it all right to paint ladders red? I don't think so; I believe the best way is to varnish them so as to see the wood.

A. H. R.

Answer: So far as we know, no carbon tetrachloride used for fire extinguisher chargers contains anything that would damage clothing or any other material. As a matter of fact, the manufacturers seem to be quite particular about this point: they do not want to have a fluid which would do damage in its application. In other words, an extinguisher may be used on a very small fire and may spray over a larger area than that involved by the fire. If the fluid was such as to stain or damage the material, more harm might be done by the extinguisher than by the fire itself. For that reason, manufacturers have been very careful to put out the purest carbon tetrachloride as extinguisher fluid.

With reference to painting fire ladders, it is far better to paint them with a good spar varnish than a paint. Just as you say, a paint would hide any defects or flaws, whereas such would show up readily through a good spar varnish.

Pumper Discharge

To the Editor:

A 1,000 gallon piston pumper is drafting water from a high service hydrant of 85 lbs., and pumping, with 260 lbs. engine pressure, through 1,400 feet of 2½-inch hose with a 1⅛-inch nozzle.

"A" said you would have to close your churn valve tight to get the pressure at the fire. "B" said to just crack the churn valve a little to get the pressure. Which

is right "A" or "B?" Would it make any difference either way? C. F. T.

Answer: It would not be necessary to open the churn valve when the pump is operating under conditions described in your letter. As a mater of fact, the discharge would be in the neighborhood of 250 g.p.m. at 260 pounds pump pressure A 1,000-gallon pump could give around 330 gallons at this pressure (taking into account the assistance given the engine by the pressure at the hydrant). The discharge could be reduced by slowing down the pump. The reduction in speed of the pump to provide a discharge 251 gallons per minute would not be excessive.

UNUSUALLY FULL PROGRAM FOR I. A. F. C. MILWAUKEE CONVENTION

Papers with Their Authors, Topics for Discussion and Bussiness Sessions of the Sixty-Second Annual Convention

THE program for the sixty-second annual convention of the International Association of Fire Chiefs, to be held August 21-24 at Milwaukee, Wis., is an unusually full one, with plenty of provision for discussion of important topics of fire fighting and fire prevention. The papers listed, too, are on subjects well chosen and of particularly timely interest.

Following is the program:

Tuesday, August 21—10 A.M. Opening Session.

Meeting called to order by President Selden R. Allen.
Invocation.
Introduction of Distinguished Guests.
Address of welcome, by Mayor Daniel W. Hoan.
Response, by Chief D. W. Brosnan, Albany, Ga.
President's Message.
Memorial Service.
Roll Call of Departed Brothers.

Memorial Address. 2 P.M.

"Civil Service Protection for Fire Departments," by Joseph N. Sullivan, Chief of Fire Department, Utica, N. Y.
"Civil Service Laws," by Edward Murray, Chairman, Fire and Police Commission, Milwaukee, Wis.
"The I. A. F. C. Educational Program Has Made Marked Progress," by Frank Cushman, Chief, Trade & Industrial Education, Washington, D. C.

8 P.M.

"Forest and Brush Fire Fighting," by Chris Smith, Chief of Fire Department, Muskegon, Mich.
"Arson" (illustrated by lantern slides), by George O. Mansfield, Chief Fire Inspector, Massachusetts Department of Public Safety, Boston, Mass.

Wednesday, August 22—10 A.M.

"Fires in Grain Elevators and Flour Mills," by E. A. Traeger, Chief of Fire Department, Minneapolis, Minn.
"Dust Explosion Hazards in Flour Mills and Grain Elevators" (illustrated with motion pictures), by Dr. David J. Price, U. S. Dept. of Agriculture, Washingington, D. C.
"The Water System—The First Line of Defense in Fire Fighting," by E. P. Bohmann, Superintendent, Water Works, Milwaukee, Wis.
"Progress in the Development of Fire Apparatus, and Problems in Connection with Its Use," by Clarence Goldsmith, Assistant Chief Engineer, the National Board of Fire Underwriters, Chicago, Ill.

2 P.M. Round Table.

Topic No. 1. "Property and Life Hazards Are Increased by Severely Cold Weather." Discussion led by H. Callan, Chief, Fire Department, Youngstown, Ohio.
Topic No. 2. "Precautions Necessary in the Care of Apparatus and Equipment." Discussion led by C. H. Ginther, Chief, of Fire Department, Rochester, Minn.
Topic No. 3. "Hydrant Service in Cold Weather." Discussion led by Hugo R. Delfs, Chief, Fire Department, Lansing, Mich.
Topic No. 4. "Is the Increase in the Number of Large Fires Since the First of the Year an Indication of the Results of Weakening of Fire Defenses Through Depression Curtailments?" Discussion lead by Frank McAuliffe, Chief, Salvage Corps, Chicago, Ill.
Topic No. 5. "Is the Failure to Replace Old Apparatus with the Modern Machines Materially Weakening the Fire Defenses of Our Cities?" Discussion led by John J. Towey, Chief, Fire Department, Newark, N. J.
Topic No. 6. "Modern Salvage Work." Discussion led by James T. Keegan, Superintendent, Salvage Corps, Newark, N. J.
Topic No. 7. "What Effect Has the Depression Had on the Fire Service." Discussion led by John J. O'Boyle, Chief of Fire Department, St. Louis, Mo.

7:30 P.M.

Banquet, Grand Ball Room, Schroeder Hotel.

Thursday, August 23—10 A.M.

"Modern Methods in fighting Fires," by Ex-Assistant Chief Thomas F. Dougherty, New York, N. Y.
"Has Radio a Place in the Fire Service," by John F. Healy, Chief of Fire Department, Denver, Col.
"New Sources of Revenue for Fire Protection," by I. H. Case, Vice President and General Manager, FIRE ENGINEERING, New York City.

2 P.M. Round Table (continued)

Topic No. 8. "What About Three Platoons in the Fire Service," Discussion led by E. T. Welch, Chief of Fire Department, Columbus, Ohio.
Topic No. 9. "Have Any Results from the Repeal of Prohibition Been Noted in the Fire Service?" Discussion led by Ross B. Davis, Chief, Fire Department, Philadelphia, Pa.
Topic No. 10, "Buying Gasoline for Fire Trucks." Discussion led by Ed Rumsey, Superintendent, Machinery, Detroit, Mich.
Topic No. 11, "Rendering Aid to Rural Districts." Discussion led by J. E. Florin, Superintendent of Fire Prevention, Wisconsin, Industrial Commission, Madison, Wis.
Topic No. 12. "Should Fire Apparatus Pass Through Traffic Lights When Red?" Discussion led by Wil-

KNOXVILLE, TENN., WANTS 1935 I. A. F. C. CONVENTION

Department of Public Safety
Office of Chief of Fire Department,
Knoxville, Tenn., August 3, 1934

To All Members of The International Association of Fire Chiefs.

Gentlemen:

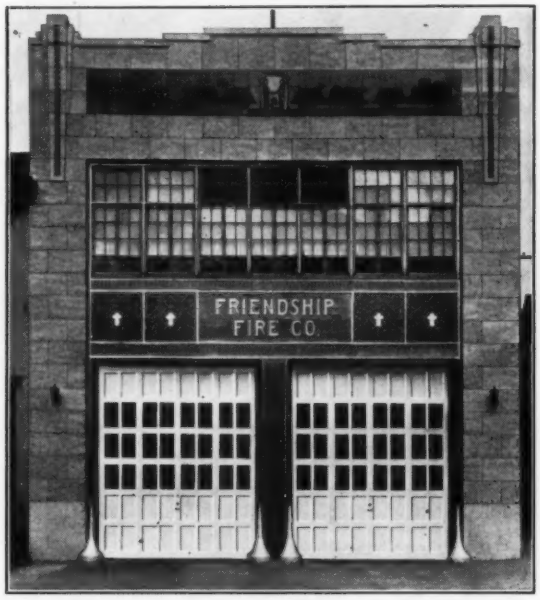
Knoxville, home of the University of Tennessee, the Southern Gateway to Norris Dam, which when completed will impound water having a shore line of eight hundred miles, the Northern Gateway to the Great Smoky Mountain National Park, out of whose five hundred thousand acres lift the highest peaks east of the Rocky Mountains, rising to heights of more than six thousand feet, wishes to be hostess to the 1935 CONVENTION OF THE INTERNATIONAL ASSOCIATION OF FIRE CHIEFS.

Will you not honor Knoxville by giving to her your endorsement as the place for the 1935 Convention?

With full assurance that no other section of the United States can offer to the INTERNATIONAL ASSOCIATION OF FIRE CHIEFS a more genuine WELCOME than can the citizens of Knoxville, I am,

Sincerely yours,
C. M. Johnson, Chief, Knoxville Fire Dept.

The "OVERHEAD DOOR" for FIRE STATIONS



ELECTRICALLY OPERATED
OR
HAND OPERATED WITH TRIP ROPE

FAST — SURE — DURABLE

The "OVERHEAD DOOR" may be installed in old or new Fire Stations. It fits tightly at top, bottom and sides. It makes available the full width and height of the opening. Any or all sections may be arranged for glass.

We are represented everywhere. Our Distributors will gladly give estimates and supply engineering service without cost.

Write, Wire or 'Phone

OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA

MY VISIT TO A FIRE STATION

By a Fire Chief —

A well known Fire Chief told me, the very best way to get information on Station Equipment is to pay a visit to some well appointed Fire House. He seemed to be of the "Old School" that held "That seeing is believing".

I drove about sixty miles to a Station that had a reputation of being modern and well equipped. The Chief of this Station gave me a most hearty welcome. We went through the dormitory. Evidently nothing had been overlooked to provide the utmost in convenience and comfort. One could not overlook the homelike feeling that pervaded the entire quarters.

Just as he was explaining the operation of the latest extension ladder an alarm came in. Instantly, three front doors went up overhead, leaving a clear, unobstructed opening for the exit of all the apparatus. The door in front of the auxiliary truck did not open, but as the driver climbed to his seat, he pulled a trip rope and before he could start his engine this door had opened.

The call proved to be a False Alarm and in a very few minutes everything was back in place ready for another run. I told the Chief the thing that interested me was that wonderful door equipment.

"I think you're right," the Chief said. "After all, the most important part of the station equipment is the doors. No matter how good your fire-fighting apparatus is, it has no value unless you can get out without delay." There were three things that seemed very important: First, the doors were reliable; second, they went up overhead, out-of-the-way, fully protected from the elements, and third, the entire width of the opening was available for driving in or out.

The Chief told me the doors and controls were made by the Overhead Door Corporation of Hartford City, Indiana. They make the complete installation and inspect the doors several times a year, without cost to the City, to make sure everything is in satisfactory and perfect working order.

As I drove home I could not help but think how those "OVERHEAD DOORS" exactly filled the bill for Fire Stations. They were the one thing that had no objectionable features, regardless whether they were used in a large or small Station. Needless to say, we installed "Overhead Doors" in our new station. The finest Station in the country hasn't anything on us when it comes to the doors.

PLANNING THE FIRE STATION

By an Engineer —

In making plans for a Fire Station I always felt the most important part was the provision for doors that would give the most dependable service as well as the greatest efficiency.

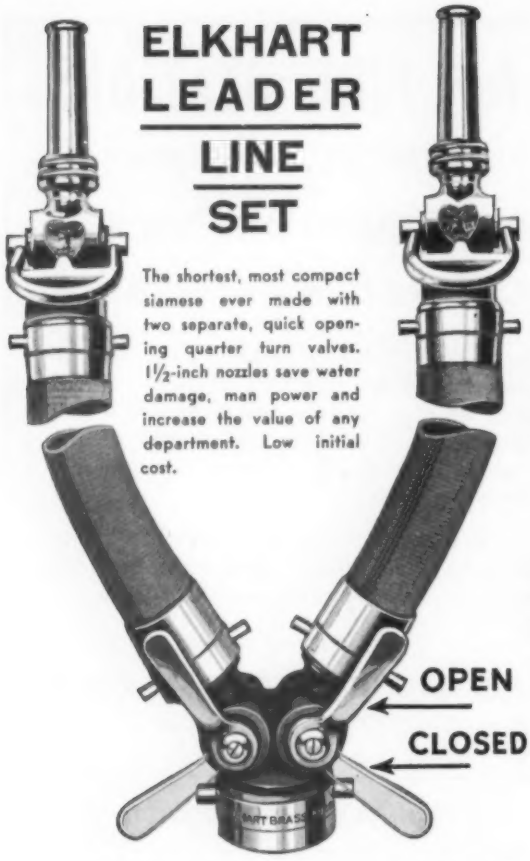
An exhaustive survey of every available door was conducted, with this one point in mind. Tests were made in respect to reliable operation upon an "OVERHEAD DOOR" manufactured by the Overhead Door Corporation of Hartford City, Indiana. This door, 14′ x 12′, operated over One Million times and was still in perfect working condition. No undue wear of parts was shown by this severe test. To further prove the efficiency of this door, a list of names selected from 750,000 owners and users of "Overhead Doors" were asked to state their honest opinion and experience with this door. Without exception we received replies indicating complete satisfaction from all owners both in regard to reliability and service.

With this overwhelming evidence of satisfaction, the next question came up relative to the adaptability to Fire Stations. A great many times Fire Stations, in crowded city areas, are restricted because of the width of possible openings. The "Overhead Door" met this in a very satisfactory manner, because of the small "return" necessary on either side and the very narrow post between doors.

Stations erected in residential districts must be as attractive in appearance as possible. Again we found the "OVERHEAD DOOR" ideal, since it could be constructed to enhance the beauty of the structure through the many possible designs and forms of construction.

Where electrical current was not available, or where expense was a vital factor, operation of the door is accomplished by overbalance springs. Pulling a trip rope opened the door instantly and silently. Electrical operation is provided, operated by "pull-stations" or the controls may be connected to the incoming alarm, in this case the doors are opened the instant the alarm is received. For outlying stations, where men are not left in the station, a time switch is provided that closes the door after the department has left the building. This conserves the heat and avoids delay, as the operation is fully automatic.

Taking every possible angle into consideration—reliability, convenience, appearance, as well as perfectly tight fitting door, top, bottom and sides—every City, Town or Village should investigate the "Overhead Door" made at Hartford City, Indiana, before selecting this most important part of the Station equipment.



ELKHART LEADER LINE SET

The shortest, most compact siamese ever made with two separate, quick opening quarter turn valves. 1½-inch nozzles save water damage, man power and increase the value of any department. Low initial cost.

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DEPENDABLE FOR OVER 30 YEARS

You take your choice when you buy brass goods. Either you buy any old brand or you specify "Elkhart" and make sure of the quality and workablity of the equipment you buy. Try "Elkhart" next time!

F-2 FOAM EXTINGUISHER

Designed particularly for fire department use, this 2½-gal. Foam Extinguisher should have a place on every piece of apparatus. May be had with or without straps.

Similar type furnished in Soda-Acid. Plate 2.

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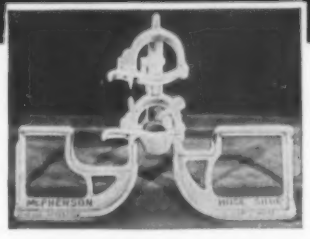
FIRE HOSE SHOE



Does the job of a Turret—

and at much less cost

If your needs call for a deck gun, a deluge set or a turret nozzle and your budget can't comfortably stand the price of these items, we suggest you get the dope on this new fire hose shoe. It actually takes the place of other high priced equipment and does just as fine a job.

It converts back pressure into down pressure, prevents backlash, stands on its own feet and takes all the pressure your hose will stand. Why subject your men to punishment when this hose shoe can be left standing in the tough spots.

Write for full information—now.

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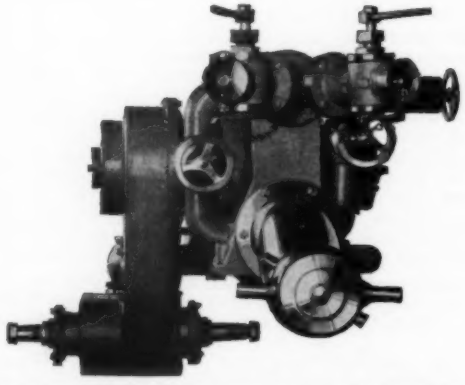
1928 E. SEVENTH ST.
LOS ANGELES, CALIF.



WATEROUS FIRE PUMPS

Waterous has been building dependable fire pumps for nearly fifty years. The Patented Hydraulic Balance eliminates internal end thrust and reduces wear to a minimum. Waterous Pumps are smooth running and quiet in operation. Complete information upon request.

Sizes: 100 to 1,000 gallons per minute.

Waterous

WATEROUS COMPANY
ST. PAUL, MINNESOTA
Established 1886

liam Gardner, Chief of Underwriters Patrol, Kansas City, Mo.

Topic No. 13, "Should Fire Departments Make Loss Estimates on Damaged Property?"

8.30 P.M.

Entertainment and Refreshments.

Friday, August 24—9.30 A.M.

Unfinished Business, Reading of Reports, etc.
Election of Officers.
Selection of Next Convention City.
Adjournment.

NECESSITY OF PROMPT AND CORRECT NOTIFICATION IN FIRE FIGHTING

A Telegraph Fire Alarm Service Essential That Can Be Relied Upon to Give Instantaneous Notice of Fire Without Error

By William F. Franklin

Fire Alarm Consultant, Graybar Building, New York

ACCORDING to a report published by the Department of Commerce of the Fedreal Government in 1912—"The Object of a Fire Alarm Signaling System is to transmit an alarm of fire to the fire fighting force within the shortest possible time after a fire is known to exist, and the best efforts and ingenuity of skilled engineers have been brought to bear on this vital question of saving time in the transmission of alarm. It is obvious that a fire may be more readily checked in its incipiency than after it has made headway; therefore, no matter how efficient a Fire Department may be, it will fail in achievement of its purpose if not supplemented by facilities for obtaining knowledge, without loss of time, of the exact location of a fire. The history of fire alarm telegraphy shows progress toward certainty of operation and an increasing use of alarm apparatus to meet modern requirements. The first fire alarm telegraph system in the United States was installed in Boston, Mass., in 1852."

Alarms Must Be Promptly and Accurately Transmitted

The value as stated of municipal fire alarm telegraph is secured when alarms of fire are promptly and accurately transmitted over the circuits and apparatus necessary for a prompt and definite response by the Fire Department. If these necessary functions are not accomplished, a delayed alarm and response will result with its attendant possibility of great loss of life and property.

Municipal fire alarm systems are laid out today on the same basis as was used in 1852, that is, fire alarm boxes are installed at selected street intersections and numbered according to their district and street or avenue locations. The Insurance Underwriters' rules set down only the maximum distances that are permitted to be allowed between fire alarm boxes in the different zones of the city, i.e., the business, industrial, residential and outlying districts—each has its specified distance. All, however, follow the original thought of "horizontal areas" when only a few multi-story buildings had to be reckoned with in making layouts.

Entirely Different Conditions Created

For many years we have been creating entirely different conditions. Realty values have increased; business, industrial and residential areas become more congested; multi-story office buildings (up to forty stories) are common; apartment dwellings of ten to fifteen stories and higher prevail; theatres housing thousands of persons are in every large city, and with all of these the concentration of life in property hazards in so-called "fireproof" structures.

Also we have the traffic situation with its parked car problem.

All of these should be recognized and studied with a view of providing dependable means for signaling the Fire Department without delay.

But the steady trend in most cities to the use of the telephone for Fire Department calling is evidenced by the available statistics taken from Federal Government and private agency surveys.

Comparison in Fire Alarm Notification

It should be stated here that at the time of the introduction of fire alarm telegraphy, telephony had not been invented. In fact, the use of telephones did not become generally recognized until 1880, when the first Federal census was undertaken. Therefore, any comparison made of these two public services starts from 1880 and covers the fifty years development of each in their respective fields.

The remarkable development and expansion of the telephone during the past fifty years, even with the drop in telephones during 1930-33, has played an important part in the situation existing in Fire Department signaling today. A few of the outstanding reports indicating the lack of usage of the "Municipal Fire Alarm Telegraph System" are set forth herewith. These cover the reports of the Federal Government for the year 1917 and private agency of 1930.

The cities of Boston and Detroit were the only ones showing improvement in the use of the Municipal Fire Alarm System from street stations. No statistics of the operations in the city of New York were taken. The city of New York, however, has greatly extended its fire alarm box system and modernized its central offices and engine house equipment.

Compare the increase in the population of the cities listed with the increase in the number of signaling boxes added to the systems within the period stated.

City	Year	No. of Street Boxes In Service	Total No. of Alarms	Box Alarms	Telephone Alarms
Chicago	1917	2133	16,885	3777	12,850
	1930	2531	30,247	4172	25,911
Philadelphia	1917	1951	5,310	1370	3,886
	1930	3222	9,362	3259	6,103
Cincinnati	1917	860	2,015	479	1,536
	1930	840	2,988	910	1,953
Pittsburgh	1917	1137	2,189	1082	1,072
	1930	1470	3,882	1899	1,983
Los Angeles	1917	421	2,544	649	1,882
	1930	1458	9,979	1926	6,812
New Orleans	1917	337	900	329	548
	1930	409	1,989	598	1,391
Washington	1917	604	1,499	664	827
	1930	1022	4,701	1813	2,879
Jersey City	1917	280	1,114	642	484
	1930	406	1,781	742	1,039
Denver	1917	212	1,410	259	1,147
	1930	313	2,366	357	1,974
Rochester	1917	407	1,215	538	666
	1930	525	2,379	860	1,511
Providence	1917	433	2,051	1,045	996
	1930	620	2,892	1413	1,442
St. Paul	1917	242	2,032	126	1,903
	1930	341	2,886	84	2,769
Louisville	1917	341	1,044	832	166
	1930	585	3,140	864	2,167
Columbus	1917	237	975	249	707
	1930	430	1,687	336	1,253
Worcester	1917	271	1,405	367	1,033
	1930	335	2,819	725	2,071
Memphis	1917	86	1,633	14	1,615
	1930	124	3,171	31	3,124
Ft. Worth	1917	137	768	149	609
	1930	300	2,803	364	2,420
Yonkers	1917	182	604	240	350
	1930	404	1,006	357	649

These statistics show that, although the fire alarm systems are being maintained and slowly extended, they are not being used to the same extent as they were before the telephone became more readily available. So it is fair to say that the lack of use of municipal fire alarm telegraph is not because of any general feeling of unreliability but rather due to the lack of availability and public consciousness.

Adequate Fire Alarm Boxes, with Better Locations Needed

What is most needed? An awakening on the part of the responsible municipal officials to the realization that their Fire Departments are being handicapped in their work of protection to life and property by the lack of adequate municipal fire alarm service. The recapture of control over fire alarm signaling by the Fire Departments through their own telegraph facilities. Most Fire Departments do not have this control today.

What are the suggestions? That consideration be given to the abandonment of haphazard street corner box locations.

That municipal fire alarm service be extended beyond the limits of the sidewalk either through their own circuits or the circuits of private utility companies. This is urgently needed but the methods and devices offered to provide dependable service should be carefully studied and the matter

of maintenance of this extended service be provided for through reliable agencies.

That radio communication be provided as auxiliary to the telegraph service and for the purpose of transmitting urgent information to responsible Fire Department officials during their absence from their headquarters.

That overhead wires on cross arms be replaced with underground construction which is now available in either duct or parkway methods at lower costs than heretofore. This should reduce the cost of apparatus and maintenance and pay for itself in savings effected.

That publicity be given to the prompt use of the municipal fire alarm telegraph and the part it played in assisting the Fire Department to arrive at a fire promptly. Remember, a prompt alarm is not only vitally needed for the protection of life and property of the general public, but it is also needed to safeguard the lives of the firemen themselves who, due to delayed alarms, are often called upon to take dangerous risks in fighting fires and making rescues. It is important to keep in mind the fact that investigations of fires that have gained headway and handicapped the Fire Department show clearly that delayed alarms have played a prominent part. Also, with Fire Department personnel and equipment being maintained on a greatly reduced basis in most of our cities, prompt alarms are needed more than ever before.

That in cooperation with the insurance rating bureaus—the credit ratings be studied in order to determine whether or not a fire alarm system adequately installed, housed and maintained would prove to be not only valuable public protection but good economics.

These statistics and thoughts are offered by the writer as a contribution to the art of fire alarm telegraph with the hope that beter signaling conditions for the serious purpose of protection to life and property may be obtained by those cities in need of this service.

WHAT'S AHEAD FOR THE FIRE SERVICE?

Fire Department Will Fall Under Close Scrutiny as to Expenses, and the Chief Must Be Prepared to Give the Public the Facts

By Percy Bugbee

Assistant Managing Director,
National Fire Protection Association

THE next few years are likely to be critical years for the fire service of this country. It appears evident that the nation-wide demand for reduction of taxes is only beginning and that for some years to come municipalities everywhere will be subjected to heavy pressure by the taxpayers to reduce their budgets. The taxpayer will be burdened with heavy Federal and State taxes as well as municipal taxes, but it is more difficult for him to do anything about his Federal and State taxes than it is about his municipal taxes. He is in a favorable position to make his demands for reduction of municipal taxes felt more effectively.

It is logical that the Fire Department will fall under the same close scrutiny of expenditures as other city departments. The Fire Department is a major budget item in most cities and there will unquestionably be many proposals, both intelligent and unintelligent, for reductions in Fire Department expense.

Chief Must Acquaint Public with Facts

The degrees to which various Fire Departments will be subjected to investigation and even attack will vary widely, but it is perhaps more or less self-evident that it is up to every Fire Chief to face the situation that exists in most cities now and will arise in others later and that there is a very definite obligation on the part of the Fire Chief to see, first, that the Fire Department in his community is giving full value to the community for the money expended upon it, and second, that the taxpayers of the community are given an opportunity to fully appreciate the services that the department renders to the public.

Companies Must Be Adequately Manned

The salary item is by far the largest item in the Fire Department budget and it appears likely that most of the attempts to cut down Fire Department appropriations will be along the lines of cutting down the strength of companies. Opposition to such attempts must be based on facts. It is not enough for the Fire Chief to simply say that cuts cannot be made. He must be in a position to back up his statements with facts based upon the actual records of the department. There will undoubtedly be a tendency to consolidate fire companies and close up fire stations. If this means addition to man-power of the remaining companies which may have been short of man-power before consolidation it is not necessarily an undesirable thing. Fewer companies better manned may operate more efficiently than more companies none of which are adequately manned.

Functions of the Modern Fire Department

The majority of our Fire Departments have come to appreciate the value of an adequate program of training for the men, salvage work to reduce water loss, fire prevention work through inspections by the men from their companies and through fire prevention bureaus, careful investigation of fires to reduce incendiarism, etc. The modern Fire Department which is carrying on these functions should have little difficulty in convincing the public of its worth. Activities of this nature lend themselves to newspaper publicity and the Chief should spare no opportunity to see that the public is informed of these activities of the department. A number of cities have been carrying on inspections of dwelling houses and this sort of work has been of great value not only in reducing the losses in buildings, but in building good will of the department as it is a function rather outside of the routine duties of the department.

Open House at Fire Station Builds Good Will

Some Fire Departments have made the fire stations a place for occasional neighbor gatherings. An occasional open house at the fire station where demonstrations are carried on and people in the neighborhood become familiar with the functions of the department will certainly build good will. One of the main reasons for the popularity and strength of the Los Angeles Fire Department has been the work accomplished by the Bureau of Public Relations in selling the department to the citizens of that city. Such Fire Chiefs as Scott, of Los Angeles; Sullivan, of Utica; Brennan, of San Francisco; Charlesworth, of Providence; Callan, of Youngstown, and Goff, of Oklahoma City have already realized and capitalized upon the value of building public good will for the Fire Department and it has paid them all very handsome dividends.

Chief Should Take Part in Civic Activities

It behooves every Fire Chief, whether his city is small or large, to take part in various civic activities, to belong to one of the local luncheon clubs, to work with the local fire prevention committee of his Chamber of Commerce and to impress his fellow citizens with his desire to render a high type of public service. These things have been important in the past, but they are of very much greater importance at the present time and will be during the coming years. No city can afford to get along without a Fire Department and no Fire Department can afford to ignore the sign of the times and the Fire Chief who does not prepare himself to prove and fight for the service that his department is rendering the community is failing to perform his full duty.

Report of Los Angeles Fire Department

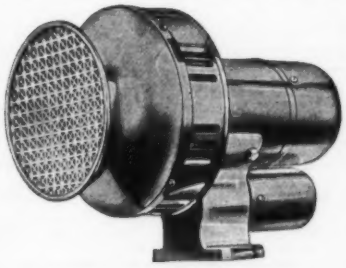
A report of the activities of the Los Angeles Fire Department for 1933 is contained in the forty-seventh annual report. Chief Ralph J. Scott reports that for a period of months, an average of nearly 1,000 persons were furnished by the county Welfare Bureau and the men were employed in the mountain area of the city to cut fire breaks, trails and cleaning existing fire breaks. The Arson Bureau made 1,202 investigations and secured thirty-eight convictions. The Bureau of Fire Prevention made a total of 348,510 inspections of which number, 9,361 were as the result of complaints.

Firemen who join the Uniformed Firemen's Association, Atlantic City Local 189, now being organized at Atlantic City, N. J., will face charges of insubordination, according to an order recently given out by Chief Joseph Leeds. The order was signed by Mayor Harry Bacharach and Director of Public Safety William S. Cuthbert. The firemen who have already joined the union were ordered to withdraw.

• FEDERAL SIRENS and AIR WHISTLES

Maximum Protection • Minimum Cost

NEW C-5 COASTER SIREN



WITH ELECTRIC BRAKE

A NEW SIREN, streamlined in design, rugged in construction, unequalled in sound volume. Despite its powerful tone this Siren uses less current to operate than smaller sirens. COASTS for more than three minutes after the current is shut off. Can be stopped instantly with brake.

•

WRITE FOR COMPLETE CATALOGUE FOR FIRE - POLICE - AMBULANCE SIRENS

Federal Vertical Sirens

The Federal General Alarm Siren in the new Vertical design is most practical for four reasons:
First: IT DISTRIBUTES SOUND EQUALLY IN ALL DIRECTIONS.
Second: IT IS ENTIRELY WEATHER-PROOF.
Third: IT IS MORE COMPACT, OF LATEST DESIGN.
Fourth: IT IS EQUIPPED WITH HIGH SPEED BALL BEARING MOTOR.
Federal Sirens, Compressed Air Horns, Fire Alarm Boxes, Vibratory Horns, Warning Signals—all are listed in our Bulletin No. 41. Sent upon request.

FEDERAL AIR WHISTLES

The modern Audible fire alarm system, instantly recognized above other city noises. The FEDERAL TRIPLE COMBINATION (illustrated) is mounted on a three branch manifold. Three sizes of horns used, each with distinctly different tones. Sharp cut code signals from impulses of Fire Alarm Boxes or other control mediums are produced on the Horns and carried through all territories as desired.

FEDERAL ELECTRIC COMPANY
8702 S. STATE STREET CHICAGO, ILLINOIS

TOP: Showing the neat, efficient knapsack with 300' of 1½" hose.

RIGHT:

As one container is emptied, another fire fighter couples up with a full container — as many lengths as you'll need— and all in quick time.

DEPENDABLE . . . .
FLEXIBLE . . . . LAYS
QUICKLY and EASILY

NIEDNER'S

Red Chain FORESTRY HOSE

THE Forest Service knows a good hose for fighting forest fires — they use NIEDNER'S. It is the lightest hose of its size; weighing less than 13 lbs. per 100 feet of 1½", with couplings. It is extremely flexible, even when wet, which speeds up removal of hose lines. It sweats just enough to protect itself from injury by fire. Three 100' lengths coupled together are packed in a canvas hose container. (Total weight, 42 lbs.) Containers are emptied as fast as a man can walk. Five men can lay 1,500 feet in this manner in less than 10 minutes.

If all or part of your job calls for fighting forest fires, you'll find it to your advantage to buy NIEDNER'S Forestry Hose. Every length carries the Red Chain identifying trademark.

Chas. Niedner's Sons Co,
10-20 JAMES ST.
MALDEN, MASS.

CENTRIFUGAL and ROTARY PUMPS
to meet all fire engine requirements

HALE FIRE PUMP CO., Inc.
CONSHOHOCKEN, PA.

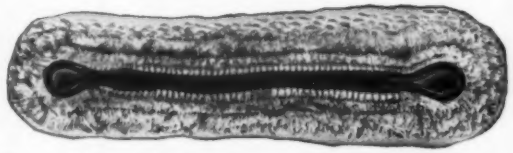
"GOODALL"
MUNICIPAL
FIRE HOSE
ALL TYPES
SINGLE JACKET—DOUBLE JACKET—WAX AND GUM TREATED—RUBBER COVERED—UNDERWRITERS LABELLED

DEALERS We are establishing agents for the sale of our fire hose in open territories: Permanent, Profitable, Exclusive. Write for details.

A COMPLETE LINE OF FIRE HOSE, FIRE COATS, BOOTS AND KINDRED ITEMS FOR USE BY FIRE DEPARTMENTS.
GOODALL RUBBER COMPANY
PHILADELPHIA, PENNA.
NEW YORK PITTSBURGH CHICAGO CLEVELAND TRENTON
Agents in all principal cities

BROWDER
LIFE NET
ABSOLUTELY SAFE AND RELIABLE
The only net that will stay taut. It will not slacken when shifting to catch a person.
Write for descriptive literature
THE CORY-PATERSON MFG. CO.
GREENFIELD, OHIO

Bi-Lateral Fire Hose



The one hose that does not require frequent replacements. Always reliable for fire service no matter how old, if the jackets are intact.
Lined with three rubber tubes.
BI-LATERAL FIRE HOSE CO.
15 Park Row, New York, N. Y.
20 N. Wacker Drive, Chicago, Ill.

COMFORT AND SECURITY
WITH THE
CAIRNS
LOW HEAD—CUSHION LINED
HELMET

COMFORTABLE AS YOUR OLD FELT HAT: WON'T SHAKE OFF
Never go to a fire without the protection of a good helmet. It may save your life.
Now is the time to start a new Fire Record Book. 3 sizes. 350-700-1400 alarms.
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FIRE HOSE
A complete line, including
Wax Treated - Solid Multiple Woven
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Single and Double Jacket Hose
Manufactured by
HEWITT RUBBER CORPORATION
BUFFALO, N. Y.
"Territories Available"

INDIAN FIRE
(Uses Clear Water) PUMP
Gives real fire protection. Standard equipment for many rural and city departments. Uses only CLEAR WATER—no chemicals. Built strong. Throws stream 50 ft. Quickly refilled. Write for prices and full details.

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Manufactured by
D. B. Smith & Co.
406 Main St. Utica, N. Y.

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SAMBO
Puts Out
CHIMNEY FIRES
Quickly

We will send an initial order of 3 doz. boxes of SAMBO and bill you $15. You can pay in 30 days.
THE GENERAL PRODUCTS COMPANY, INC.
NORWALK, CONN.

WHAT'S BURNING?

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of July, 1934. These figures, compiled from the telegraphic reports are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending July 31	Loss in Thousands of Dollars
South Prairie, Wash.—Marstadt Lumber Mill destroyed	50
Oakland, Cal.—Business and residential property	100
Cascade Locks, Ore.—Business property	50
Dartmouth, N. S.—Business property destroyed	65
Joliet, Ill.—Yards of Webb & Gray Coal Co. destroyed	50
McGuffey, Ohio—Three barns on Snyder farm	50
Stockton, Cal.—Whse. of Stockton Lumber Co	165
Seattle, Wash.—Globe Feed Mill destroyed	50
Flint, Mich.—Whse. of Gainey Furniture Co., destroyed	165
Cheyenne, Wyo.—Several business establishments	80
Marysville, Kan.—Main Street business property	50
Youngstown, Ohio—Oles Market destroyed	50
Putnamville, Ind.—Factory at State Penal Farm damaged	50
Bay City, Mich.—Dredge of Dow Chemical Co	80
Chester, Cal.—Lee Lodge, adj. cottages and business property	50
Bridgeport, Cal.—Farm property—dwellings and barns	50
Denver, Colo.—Plant of K. & B. Packing and Provision Co	165
Rocky Mount, N. C.—Store of S. H. Kress Co., destroyed	50
Vancouver, B. C.—Mills of Western Red Cedar Co., Ltd	200
Greenville, Pa.—Plant of Greenville Steel Car Co	100
Chicago, Ill.—Plant of Warfield Chocolate Co., damaged	50
Maynard, Mass.—Gruber Bros. business block	60
Williamsburg, Ohio—Factory of Sullivan Shoe Co., adj. property	65
Seattle, Wash.—Arlington High School bldg. destroyed	80
Dalton, Ont.—Yards of Austin-Nicholson Lumber Co	600
Jersey City, N. J.—Charcoal plant of Hagman Bros. Co	80
Northfield Falls, Vt.—Northfield Woolen Mills destroyed	80
Camden, Ark.—Bldg. of Saxon Mann Motor Co	50
Edgemere, L. I., N. Y.—Business property	80
Roanoke, Va.—Furniture whse. of Phelps & Armistead, Inc	80
Ft. McMurray, Alta.—Franklin Hotel and adj. property	125
Brooklyn, N. Y.—Pier B, Erie Basin, together with cargo of Australian steamer	200
Schenectady, N. Y.—G. Hilderbrand Coal yds. destroyed	75
Dooley, Mont.—Business district destroyed	60
Cairo, Ill.—Bruce Lumber Co. mill damaged	110
Rockingham Park, N. H.—2 stables of New England race track	75
Corsicana, Tex.—Hardy Peck Bldg. damaged	95
Denver, Mo.—Denver Vol. Firemen's Assn. headquarters destroyed	75
Keystone, W. Va.—The Koppers Co. mine destroyed	50
Jamestown, N. Y.—Fire in varnish factory	75
Cincinnati, Ohio—Grain elevator of Early & Daniel Co	100
Marianna, Ark.—Plant of Miller Lumber Co., destroyed	50
Brookville, Ohio—Pastime Theatre building destroyed	50
Dorris, Cal.—Lumber mill and adj. business property	400
Seattle, Wash.—Kulien loft building damaged	65
Jackson, Cal.—Berry Sawmill destroyed	50
Riverside, Iowa—R. H. Heitzman hardware store damaged	80

City Can Raze Condemned Building

A city building inspector of Youngstown, Ohio, may make a condemned building safe or can demolish it. So ruled Judge E. Maiden, Jr., in upholding the constitutionality of the city ordinance which provided for such powers. The judge ruled that the city can demolish a condemned building without a court hearing. Judge Maiden, Jr., stated that he followed an opinion handed down in Idaho in 1925.

The question arose when suit was filed by the owner of property which was condemned by Youngstown. In his suit, the plaintiff argued that the ordinance is unconstitutional, being in derogation of the due process clause of the Constitution. A notice of appeal has been filed.

New York Firemen Join False Alarm Crusade

The Uniformed Firemen's Association, composed of members of the New York Fire Department, have joined in the drive instituted by Fire Commissioner McElligott, to curb the false alarm evil that is assuming such great proportions in the city. The Commissioner has placed Fire Marshal Thomas P. Brophy in charge of the drive, to coordinate all the city and civic forces in an effort to eliminate the evil.

The association has received permission from Commissioner McElligott to use its own funds in defraying the expenses of the rewards offered for the arrest and conviction of persons sending in false alarms. Placards are to be attached to each fire box in the city offering such a reward.

The Uniformed Firemen's Association is coupling its general reward with a specific one of $500 for arrest and conviction of the person who turned in the alarm at Crown Street and Utica Avenue, Brooklyn, which resulted in the death of a fireman, whose neck was broken, when the Battalion Chief's car, which he was driving in response to this alarm, collided with a taxicab.

CORRESPONDENCE

Fire Department Salaries Raised in Clearwater, Fla.

To the Editor:

Prosperity has finally gotten around that long lost corner for the members of the Clearwater, Fla., Fire Department.

At a recent meeting of the Board of City Commissioners a resolution was adopted granting a 10 per cent raise in pay to all members of the department except the Chief, who was given a raise of twenty-five dollars per month.

This is indeed good news and we hope to see in FIRE ENGINEERING that a lot of other cities throughout the country have followed the example of Florida's Springtime City.

J. T. McNULTY,
Chief Fire Department,
St. Petersburg, Fla.

Fire Stations Built with PWA Loans

Many fire stations are scheduled for construction within the next few months with money secured from the Public Works Administration. For example, during the week of July 10 loans and grants were made for a total of thirteen new fire stations in different cities, repairs and mechanical equipment for 12 different stations in one city and additions to two other fire stations.

Those cities planning new fire stations with PWA money are:

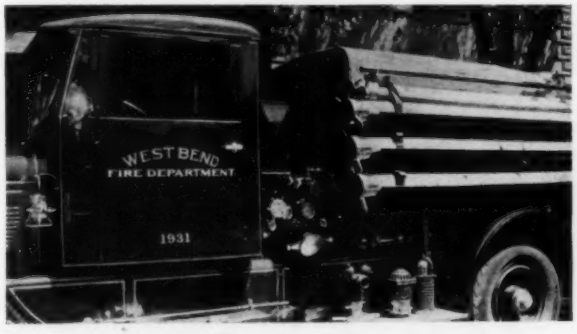
Fairfield, Conn., 2 stations; Topeka, Kan., 1 station; Saugus, Mass., 1 station; Jefferson City, Mo., 1 station; Baldwin N. Y., 1 station; Charlotte, N. C., 1 station; Nashville, Tenn., 5 stations, and Avery, Tex., 1 station.

"Dad" Schively, Insurance Man, Dead

John H. Schively, well known in insurance circles, and more popularly known as "Dad" Schively, died at the age of seventy-six.

He was born in Philadelphia in September, 1858, and started his working career as a printer's "devil." At one time he was in the missionary service in Chile. He returned to this country and in 1886 graduated from Dickenson College. He continued his missionary work. During his interesting carreer, Mr. Schively was printer, publisher and statesman in Washington and in 1901 was elected Insurance Commissioner of that state.

"Dad" Schively was a close friend of Jay W. Stevens. When Mr. Stevens became manager of the old Fire Prevention Bureau of the Pacific, Schively performed the public relations work for that organization. For years he was Wielder of the Quill for the San Francisco Pond of the Blue Goose, a fraternal order of insurance men. He was Chaplain of the Pacific Coast Association of Fire Chiefs, and delivered the memorial address at the San Diego convention of the International Association of Fire Chiefs.



Cover Protection for Fire Apparatus

An example of simple protection of fire apparatus and members of the company from the weather, is found in the covered apparatus of West Bend, Wis. A cab is provided for the driver. The rear part is protected by a tarpaulin.

Improved Gas Mask Facepiece

Changes in the design of the E. D. Bullard Company gas mask have made it possible to carry on a conversation even though the person is wearing the facepiece. The triangular eyepieces are set close to the eyes and the manufacturers claim that this gives a wider vision. The exhalation valve has been enlarged to about double the size commonly used.

Maritime Chiefs Elect Vincent Hall

The twentieth annual convention of the Maritime Fire Chiefs' Association was held at Truro, Nova Scotia, July 17-18. The new officers are: President, Vincent Hall, Sydney Mines, Nova Scotia; Vice-President, Walter O'Blenis, Moncton, N. B.; Second Vice-President, W. J. Christie, Truro, N. S.; Third Vice-President, R. W. Peck, Kentville, N. S.; Secretary-Treasurer, K. J. MacRae, St. John, N. B. The 1935 convention will be held at Moncton, N. B., July 16-17.

N. F. P. A. Will Meet in Atlanta

As a departure from former years, the 1935 annual meeting of the National Fire Protection Association will be held in Atlanta, Ga., the week of May 13.

The association announces that Roy Headley, Assistant Forester, U. S. Forest Service, has been appointed Chairman of the Forest Committee to fill the vacancy caused by the resignation of Mr. Morrell.

Two oil burner ordinances adopted at the 1934 annual meeting have been published in pamphlet form. A committee has been appointed to prepare recommendations for eliminating or controlling the hazard of ignition by static electricity.

Signals of New York Fire Department

In a general order to the various companies of the New York Fire Department, Commissioner John J. McElligott issued the following table of preliminary and miscellaneous signals in use by the department:

2. Time Signal 12 Noon.
2-2. Second Alarm.
2-2-2. (a) Pay Signal.
(b) Out of Service Signal.
(c) Company stops to extinguish a fire while responding to another location.
2-2-2-2. Pumper of an engine company.
3. Special Building Box.
3-3. Third Alarm.
3-3-3. Men only.
3-3-3-3. Fuel Wagon.
4. Chief of Battalion.
4-4. Fourth Alarm.
4-4-4. In Service Signal.
4-4-4-4. Restoration of two platoon system.
5. Engine Company.
5-5. (a) Fifth Alarm.
(b) Master Station.
5-7. Engine Co., Hook and Ladder Co., and Chief of Battalion 1st due.
5-5-5. Sappers and Miners.
6. Hose Wagon.
6-6. (a) Borough Call, Manhattan and Bronx.
(b) Notification Signal for Manhattan and Bronx alarms.
6-6-6. Department Ambulance.
6-6-6-6. Recall of Off Platoon.
7. Hook and Ladder Co.
7-7. (a) Borough Call, Brooklyn and Queens.
(b) Notification Signal for Brooklyn and Queens alarms.
7-7-7. Public Ambulance.
8. Increase, reduce or shut down pressure on High Pressure System.
8-8. (a) Borough Call, Richmond.
(b) Notification Signal for Richmond alarms.
9. Water Tower.
9-9. Simultaneous Call.
9-9-9. Restoration of High Pressure System after a breakdown.
10. Rescue Company.
10-10. Police Emergency Squad.
11. Telegraph Test.
12. Fire Patrol.
12-12. Police Riot Call.
13. (a) Breakdown of apparatus while responding to an alarm.
(b) Unable to leave quarters in response to an alarm.
13-13. Breakdown of High Pressure System.
14. Relocation of Chief of Battalion.
15. Relocation of Engine Company.
16. Relocation of hose wagon of an Engine Company.
17. Relocation of Hook and Ladder Company.
18. Search Light Apparatus.

A fire station costing $50,000 will be erected at Baldwin, N. Y., financed by a PWA loan and grant.

Fire Loss Cut by Rigid Inspections

Fire Marshal Cecil C. Freston, Tampico, Mexico, who is almost 84 years of age, and, as he puts it, "still going strong" has just completd ten years of voluntary service in his present position. During the decade, he has made a most remarkable record in reducing the city's fire waste.

Tampico is a city of approximately 78,000 population, and with 72 per cent wooden construction, cost fire insurance companies only $19 last year. In 1923, the year prior to Fire Marshal Freston's inauguration of his continuous inspection service, claims paid by the companies operating in Tampico aggregated $487,500.

The Tampico official points out that he zoned the city for fire prevention purposes. To each zone, he alloted from two to three members of the Fire Department, depending upon the locality and the construction. The firemen make continuous inspections of buildings, equipment and contents, in their respective zones. They visit stores daily to see that there is no accumulation of empty boxes, packing material or other combustible waste on the premises.

The firemen see to it that gasoline filling stations are provided with a sand pile and two shovels located in plain view. They insist that restaurants and bakeshops have at least a ten-gallon foam extinguisher ready for instant use in an emergency. Electrical installations are constantly checked up for defects of any character. Carpenter shops and other like hazardous risks must be provided with first aid fire extinguishing appliances.

Failure on the part of a storekeeper or the head of an industrial plant to keep the fire extinguishing appliances installed on his premises properly charged and in workable condition at all times results in a stiff fine being imposed upon the guilty party.

As a further precaution against fire, any merchant, manufacturer or private individual who is known to be in financial difficulties is carefully watched, to avert the possibility of arson.

Summing up his efforts to keep the fire waste of the city at the minimum, Fire Marshal Freston says:

"Every precaution is used that I can devise. Firemen are carefully drilled, special attention being paid to their getting away quickly after an alarm is received, eighty seconds being the absolute time limit. If not away in that space of time, an investigation is made to determine the cause of the delay, and the needed remedy is immediately applied."

Miamisburg, Ohio, is awaiting delivery of a 1,000-gallon Ahrens-Fox pumper.

Hawarden, Ia., has received a 500-gallon pumper. It was purchased for $5,700.

Princeton, N. J., has completed improvements to the headquarters station.

Chief Michael McCarthy, Orange, N. J., recommends the appointment of a Second Assistant Fire Chief, creation of a new engine company for the northern part of the city, and the installation of new fire alarm boxes.

Design of Fire Apparatus at Brussels, Belgium

Brussels, Belgium, is another foreign city that uses the enclosed type of apparatus body. It provides for the comfort of men riding to a fire and has compact space for transporting equipment. Two hose reels are fixed to the back of the apparatus.

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REG. U.S. PAT. OFF.

Now Styled for
Better Appearance

UNIFORM SHIRTS *at the* RIGHT PRICE

SUPERLATIVE QUALITY

Guaranteed not to shrink. Full cut—roomy with two button through pockets. Medium blue, heavy fine yarn fast color sanforized chambray or navy blue (tub test) percale. Sizes 14½ to 18.

Before you place your next order compare the quality of SIGNAL Uniform Shirts and the prices with all others. If your Dealer cannot supply you with SIGNALS don't accept a substitute line—write us direct for prices.

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FIREMEN COAT

Here is just the coat you've been waiting for—the coat worn by firemen who protect the World's Fair—made of Vanitex—an extremely durable, pliable material, made exclusively for MIDWESTERN. It's the coat that's equipped with our famous safety snap. It's an acid-proof, soft, flexible coat that's a comfort and pleasure to wear.

See this new coat at your first chance. Write for catalog and samples or let us send you the coat itself C.O.D. satisfaction guaranteed.

We manufacture a complete line of firemen's clothing.

Catalog on request

MIDWESTERN MANUFACTURING CO.

MACKINAW, ILLINOIS

DEPENDABILITY

that's the answer

Two uniforms may contain the same cloths, linings, canvas, buttons, YET one has modeled into it the expert workmanship of a master designer, while the other is lacking entirely in style and appearance.

SMITH - GRAY Uniforms are recognized everywhere for their style, character, workmanship and lasting appearance.

Fire and Police Specialists

Established since 1845

UNION MADE

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NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

BARTON
FIRE PUMPS
CENTRIFUGAL TYPE

LARGE capacities at high pressures. Pumps clean or dirty water. Used with any standard commercial truck; front mounted. Big saving in cost. Passed Underwriters' 12-hour tests. Sizes for every need. Write for Bulletin.

American Steam Pump Company
Battle Creek, Mich.

COVER'S
NOD and SHAKE
GAS MASK

Carry It in Pocket. Slip on in a Jiffy. Positive Protection to Eyes Against Smoke. Safe in Fumes.

Price $48 per Dozen

Upon receipt of $4.00 one will be forwarded as a sample, postpaid.

H. S. COVER
Station A
SOUTH BEND, IND.

JOHN H. CLAY, INC.
1320 Ridge Ave., Philadelphia, Pa.
Established 1864

Clay Automatic Door Opening Devices for Fire Station Doors Opening either In or Out. Save valuable minutes in getting to fires. Send for Bulletin.

Are You Ready for Promotion?

QUESTIONS
AND
ANSWERS
FOR
BATTALION
AND
DEPUTY CHIEF

A 210 page book, fully illustrated, by Geo. J. Kuss, Former Deputy Chief, New York Fire Department, and Fred. Shepperd, Managing Editor of FIRE ENGINEERING.

A valuable book, not only for candidates for examination for Battalion and Deputy Chief, but for every member of the department. The only book published which gives detailed methods of operating at large fires and the reasons for each move.

The following are a few of the important topics covered:

Detailed description of the proper procedure in fighting fires: 1. Size-up; 2. Calling of help; 3. Saving of life; 4. Covering exposures; 5. Extinguishing fire; 6. Overhauling. How to test motor fire apparatus. How the following types of fires should be fought: Large department stores, large hotels and rooming houses, large area residential fires, combination stores and apartments, motion picture film exchanges, tall office buildings, wholesale grocery stores and warehouses, group building fires, theatres, schools, factories, etc., and considerable other data.

Here's a book that actually helps any officer or fireman ambitious enough to want a bigger and better job. Just look over the topics it covers and if you don't feel sure of just how to handle every situation, the proper thing to do—and do now—is to

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$2.15

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NAME ..... RANK .....

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New England Chiefs Select New Bedford

The 1935 convention of the New England Association of Fire Chiefs will be held at New Bedford, Mass., in June with Chief Edward F. Dahill as convention host. New Bedford is at the gateway to Cape Cod, and there are good roads leading to the city.

Buy Paper—Secure Fire Service

There have been all kinds of newspaper campaigns to increase circulation, but the *Journal-Gazette* of Fort Wayne, Ind., is responsible for a most novel one. The newspaper purchased fire apparatus. Farmers who subscribe for the newspaper and pay a small additional fee, may call for the apparatus in the event that they have a fire. Provision has also been made for the use of the apparatus by non-subscribers.

Maine Chiefs Meet at Camden

The quarterly meeting of the State Association of Fire Chiefs of Maine was held at Camden, July 17. Frank Cushman, Chief, Trade Industrial Education, Washington, D. C., spoke on national education, followed by S. E. Patrick, State Department of Education, Augusta, Me., who talked on state education. Chief Daniel R. Tierney, Arlington, Mass., described the procedure of schools in Massachusetts. The Chiefs held a round table discussion on the advisability of establishing a fire school in Maine.

The members voted to authorize the Educational Committee to proceed with its educational program. The next quarterly meeting of the association will be held at Portland in October.

Tennessee Firemen Elect Chief Beard

Many timely papers were presented at the fourth annual convention of the Tennessee Firemen's Association held at Columbia, June 26-28.

The new officers are W. P. Beard, Columbia, President; B. S. Mattingly, Nashville, Executive Vice-President; Irby Klinck, Memphis, Vice-President West Division; K. K. Eslick, Fayetteville, Vice-President Middle Division; W. J. Sams, Knoxville, Vice-President East Division; Joe J. Martin, Nashville, Secretary-Treasurer; W. D. Rogers, Nashville, Historian.

Nearly three hundred persons were present at the convention, the largest number recorded by the association. The next convention will be held at Johnson City, at a date to be decided by the Executive Committee.

Elizabeth, N. J., has placed an order for a 75-foot aerial ladder.

Three members of the Passaic, N. J., Fire Department were recently promoted. Walter S. Gibson is Chief, William Nelson, Assistant Chief, and Captain John Zank will serve as head of the Fire Prevention Bureau and as Drillmaster.

Westport, Mass., Apparatus Carries Water to the Fire

The layman feels it is the supreme joke when a motorist brings his fire to the fire house. But Westport, Mass., has a unit which carries 1,000 gallons of water to the fire. To the Chief such apparatus is not new. The Mack apparatus delivered to Westport carries ladders, small tools, and has the usual pump installed.

William A. Barry Dead

William A. Barry, representative of the Eureka Fire Hose Manufacturing Company in the New York Metropolitan District, died on Tuesday, July 24, from a cerebral hemorrhage. He joined the forces of the company in June, 1904, and for a number of years has been Municipal Sales Representative for the Metropolitan District.

Mr. Barry had a host of friends who will regret to learn of his passing on.

The Late William A. Barry

Fire Loss for Fresno $4.78

The per capita fire loss of Fresno, Cal., during the fiscal year 1933-34, according to the annual report of Fire Marshal L. A. Moore, filed with Mayor Leymel in the middle of July, amounted to $4.78. This was the greatest since 1928-29, but a single large fire a year ago accounted for two-thirds of the total. The heaviest fire loss was in July, 1933, amounting to $160,014, and the lowest last January, $670. Losses to structures in which the fire originated were $260,699, and to adjoining property only $3,307. There were 129 fire alarms which resulted in property losses, and 213 in which no losses occurred.

Improvements to the Phoenix, Ariz., Department

Recommendation by the Engineers of the National Board of Fire Underwriters, following a survey made of Phoenix, Ariz., have been complied with, according to Chief Frank S. Cochrane, of the Fire Department of that city. The City Manager, W. C. Lefebvre, has ordered four hosemen and two operators added to the department, and the city will also construct a drill tower.

Because of conditions found through the survey, insurance rates have been ordered increased 25 per cent.

Fire Not Emergency—Dog Racing Is!

A bill has come up in the Massachusetts legislature which would compel fire apparatus and other emergency vehicles to stop at red traffic signal lights. Gov. Ely is against the measure; so is the Boston *Herald* which said editorially:

"Because of an accident or two recently, our wise solons would put a hose truck or an engine in the same class as a passenger vehicle. Even if no other vehicles were in sight at a crossing, or no pedestrian should be around, the firemen must stop and wait.

"A fire is not an emergency to the Legislature, but horse and dog racing is. Therefore the Legislature has attached an emergency preamble to the pari-mutuel measure, so that counties may vote on the proposal before the citizens of the state as a whole have had an opportunity to express themselves in a general referendum. The conscript fathers do not want to have a man run down at a crossing by fire apparatus while he is on the way to a horse race or dog scramble."

Book Marks Help Reduce Fire Loss

Book markers are issued by the Bureau of Fire Prevention, Toledo, Ohio, and are distributed through the schools and public libraries. In this way fire prevention messages reach the thinking element of the city. In addition to the book marks, monthly reports are given to the press and the Chamber of Commerce.

The messages on the book marks are changed from time to time. The last issue was paid for jointly by the Standard Oil Company and the Gulf Refining Company. Each paid $75 for the total run of 100,000 copies. Other companies are ready to finance future releases of the book marks.

Albion E. Peabody, Chief Inspector, Bureau of Fire Prevention, believes that this plan has helped to materially reduce the city's fire loss. For 1933, the per capita fire loss was $1.10.

The Bureau uses firemen who have been injured to such an extent that they are no longer good for active fire duty.

FALSE ALARMS

THE TRUTH

She was still young and still able to wear clothes well. She prevailed upon her husband to let her take a large supply of frocks as they headed for the convention. The gracious husband, on the appointed day, arrived at the station loaded down chiefly with his wife's luggage.

"I wish," said the husband thoughtfully, "that we'd brought the piano."

"You needn't be sarcastic," said the wife. "It's not a bit funny."

He explained, "I'm not trying to be funny. I left the tickets on it."

Sign in a Savannah barber shop: "Men's haircuts, 25c. Ladies' haircuts, 35c. Children our specialty."

QUICK ACTION

A large number of local residents were attracted to the county court, where a most important arson trial was being conducted. Many of the legal moves were based on fine technicalities of the law. The judge was pointing out to the prosecuting attorney that a witness was not necessarily to be regarded as untruthful because he alters a statement made previously.

"For instance," he said, "when I entered this court today I could have sworn I had my watch in my pocket. But then I remembered I had left it in the bathroom at home."

When the judge reached home that night his wife said:

"Why all this bother about your watch—sending four or five men for it?"

"Good heavens," exclaimed the jurist, "what did you do?"

"I gave it to the first one who came. He knew just where the watch was."

The modern flapper is not different from the girl fifteen years back. Very often she is the same person.

FEATURES HIDDEN

A young man with a Joe E. Brown type mouth called to ask the father's consent for his daughter's hand.

"I have come," he said as he smiled broadly to cover up his confusion, "to ask for your daughter's hand. I—I—"

"Excuse me," interrupted the father "but will you close your mouth for a moment so that I can see who you are?"

The hardest things in the world to make the right choice in are muskmelons and matrimony.

FOLLOWED RULE

The summer-day quiet of the picturesque village was rudely broken by the shrill blasts of the siren. Instantly cars came from all directions to rush to the fire. In the traffic jam which followed, a volunteer fireman who was rushing to the alarm crashed into a woman motorist ahead.

"I turned the way I signaled," indignantly said the woman after the crash.

"I know it," sadly said the man, "that's what fooled me."

FEE FOR ADVICE

The new doctor was very much a fire fan. He soon became acquainted with the boys at the central station and helped them to master the rudiments of first aid work. The Chief thought a great deal of him. When the Chief's wife staged her next party, her husband asked her to send a note inviting the young doctor. She promptly received a note from the physician which neither could decipher.

The wife said in an aggrieved tone, "I must know if he accepts or refuses."

"If I were you," suggested the Chief, "I would take it to the druggist. Druggists can always read doctor's handwriting, no matter how bad the hand."

The druggist looked at the sheet that was handed him. Without waiting for an explanation he went back of his partition and returned a few minutes later with a bottle.

As he handed it over he said, "There you are madam. That will be $1.35."

His girl is Mae West's double. She's twice her size.

WELL SATISFIED

The Chief was returning from a fire near the city line, late in the evening, along a dirt road which was a short cut to the fire house. He saw a car parked along the road and ordered his driver to stop.

"What's the trouble? Got a flat tire?" he asked.

"No," came an answer from the car. "This is a live wire."

—Drawing by "Art" Espey

Then Came the Awakening

CHIEF HENRY of Lexington, Ky., writes:

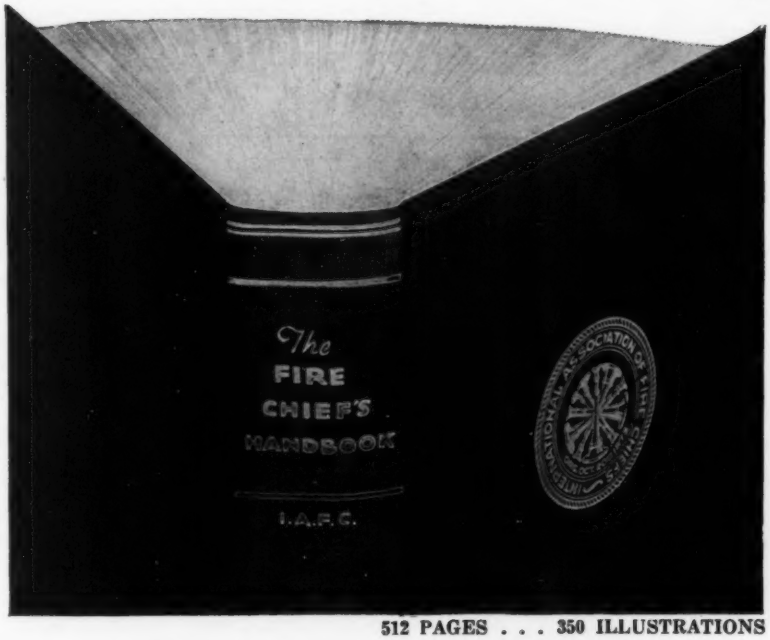
"It is the work of one of vast experience. I find it very helpful and useful in the instruction of firemen. Every fireman should have a copy for study and reference."

LIEUTENANT BRANDT of Sheboygan, Wis., writes:

"It goes straight to the point and gives you, in plain firemen's language, that knowledge which every fireman craves."

W. HERBERT GRAHAM, Sec. and Chief Examiner Civil Service Board, Oakland, Calif., writes:

"In our work as Civil Service Examiners, we have found it a most valuable source of information. We have used the material from it in three promotional examinations up to this time."



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CONVENTION DATES

Aug. 13-17—NORTHWEST FIRE SCHOOL. 7th Annual Fire School, University of Minnesota, Minneapolis, Minn. Address, Executive Offices of University.

Aug. 14-16—CUMBERLAND VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 33rd Annual Convention, Waynesboro, Pa. Secretary, C. L. Jacobs, Waynesboro, Pa.

Aug. 14-17—DOMINION ASSOCIATION OF FIRE CHIEFS. 26th Annual Convention, London, Ont., Can. Secretary, Chief James Armstrong, Box 56, Kingston, Ont.

Aug. 16—VERMONT STATE FIREMEN'S ASSOCIATION. 44th Annual Convention, Vergennes, Vt. Secretary-Treasurer, J. Shank, Poultney, Vt.

Aug. 17-18—CONNECTICUT STATE FIREMEN'S ASSOCIATION. 51st Annual Convention, Waterbury, Conn. Secretary, D. W. Harford, South Norfolk, Conn.

Aug. 19-22—NEW YORK STATE PERMANENT FIREMEN'S ASSOCIATION. 16th Annual Convention, Utica, N. Y. Secretary-Treasurer, Lieut. Frank A. Emden, Utica, N. Y.

Aug. 20-22—KANSAS STATE ASSOCIATION OF FIRE CHIEFS and KANSAS STATE FIREMEN'S ASSOCIATION. Respectively 18th and 47th Annual Conventions. Secretary, Chief K. D. Doyle, Wamego, Kan. Regional Fire Schools will be held as follows: Hays, October.

Aug. 21-24—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. 62nd Annual Convention, Geneva, N. Y. Secretary, Fred A. Davis, Fort Edwards, N. Y.

Aug. 21-24—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 62nd Annual Convention, Schroeder Hotel, Milwaukee, Wis. Secretary-Treasurer, Ex-Chief James J. Mulcahey, Yonkers, N. Y.; Chairman, Exhibit Committee, Chief Daniel B. Tierney, Arlington, Mass.

Aug. 22—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual Convention, Schroeder Hotel, Milwaukee, Wis. (Meets second day of I. A. F. C. Convention.) Secretary-Treasurer, Chief Ray Tilley, Waterloo, Ia.

Aug. 28-30—KENTUCKY FIREMEN'S ASSOCIATION. 15th Annual Convention, Newport, Ky. Secretary, W. P. Lipscomb, Fire Department Headquarters, Lexington, Ky.

Sept.—ARKANSAS STATE FIREMEN'S ASSOCIATION. 13th Annual Convention, Monticello, Ark. (Exact date to be decided later.) Secretary-Treasurer, H. D. Compton, Central Fire Station, Little Rock, Ark.

Sept. 4—NEW HAMPSHIRE STATE FIREMEN'S ASSOCIATION. 37th Annual Convention, Portsmouth, N. H. Secretary, Oscar P. Stone, 312 Manchester St., Manchester, N. H.

Sept. 4-5—IDAHO STATE FIREMEN'S ASSOCIATION. 20th Annual Convention, Rupert, Idaho. Secretary-Treasurer, Asst. Chief Warren Compton, Central Fire Station, Boise, Idaho.

Sept. 4-6—MARYLAND SHORT COURSE FOR VOLUNTEER FIREMEN. 5th Annual Short Course, University of Maryland, College Park, Md. Dean A. N. Johnson, College of Engineering, University.

Sept. 5-6—MISSOURI ASSOCIATION OF FIRE FIGHTERS. 10th Annual Convention, St. Joseph, Mo. Secretary-Treasurer, M. J. Mulvoy, 3500 South Grand St., St. Louis, Mo.

Sept. 8—FIRE PROTECTION DAY OF LONG ISLAND. 2nd Annual Fire Protection Day, under auspices of Fire Chiefs' Council of Nassau County, Roosevelt Field, Mineola, N. Y. Secretary, George W. Clough, 39 Franklin Court, Garden City, N. Y.

Sept. 11-13—MASSACHUSETTS STATE FIREMEN'S ASSOCIATION. 55th Annual Convention, Holyoke, Mass. Secretary, Daniel J. Looney, 1137 Old South Bldg., Boston, Mass.

Sept. 11-14—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 41st Annual Convention, Pasadena Civic auditorium, Pasadena, Cal. Secretary, Jay W. Stevens, 1014 Merchants Exchange Bldg., San Francisco, Cal.

Sept. 14-15—EASTERN ASSOCIATION OF FIRE CHIEFS. 7th Annual Convention, Hagerstown, Md. Secretary, Chief F. E. Soulé, Contesville, Pa.

Sept. 17-20—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 12th Annual Convention, Santa Cruz, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Ave., San Diego, Cal.

Sept. 18-19—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 14th Annual Convention, Harrington, Del. Secretary, Sam H. Carson, Dover, Del.

Sept. 18-19—IOWA FIREMEN'S ASSOCIATION. 57th Annual Convention, Creston, Ia. Secretary, Paul A. Soener, Independence, Ia.

Sept. 21-22—NEW JERSEY STATE FIREMEN'S ASSOCIATION. 57th Annual Convention, Atlantic City, N. J. (Tentative date. Exact date to be decided later.) Secretary, Evan F. Beners, Moorestown, N. J.

Sept. 26—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY, CONN. Regular Meeting, New Canaan, Conn. Secretary, John Moehring, Toms Road, Stamford, Conn.

October—STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Next Quarterly Meeting, Portland, Me. (Exact date to be decided later.) Secretary-Treasurer, Ex-Chief Charles W. Bowker, South Paris, Me.

Oct. 1—TEMISKAMING FIREMEN'S ASSOCIATION. 19th Annual Convention, Rouyn, Que., Can. Secretary-Treasurer, F. E. Thompson, Box 686, New Liskeard, Ont.

Oct. 2-4—PENNSYLVANIA STATE FIREMEN'S ASSOCIATION. 55th Annual Convention, Hotel Neff, Sunbury, Pa. Secretary, Charles E. Clark, Wayne, Pa.

Oct. 16-18—ILLINOIS STATE FIREMEN'S ASSOCIATION. 48th Annual Convention, Granite City, Ill. Secretary, Assistant Chief Roy W. Alsip, Fire Department, Champaign, Ill.

Oct. 17—FIRE CHIEFS EMERGENCY PLAN (Westchester County, N. Y.). Next Regular Meeting, Fire Headquarters, Ossining, N. Y. Secretary, Captain Walter M. Dawkins, Harrison, N. Y.

May 13-17, 1935—NATIONAL FIRE PROTECTION ASSOCIATION. 39th Annual Meeting, Atlanta, Ga. Secretary-Treasurer and Managing Director, Franklin H. Wentworth, 60 Batterymarch Street, Boston, Mass.

June, 1935—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 13th Annual Convention, New Bedford, Mass. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.

June 11-14, 1935—ILLINOIS FIRE COLLEGE. 11th Fire College, under auspices of Illinois Firemen's Association. Address, Assistant Chief Roy W. Alsip, Secretary, Illinois Association, Fire Department, Champaign, Ill.

July, 1935—MICHIGAN STATE FIREMEN'S ASSOCIATION. 61st Annual Convention and 7th Annual Fire College, Detroit, Mich., probably in middle of July. Secretary-Treasurer, Statistician and Director, Fire College, Charles V. Lane, Charlotte, Mich.

July 16-17, 1935—MARITIME FIRE CHIEFS' ASSOCIATION. 21st Annual Convention, Moncton, N. B. Secretary-Treasurer, Capt. K. J. MacRae, Salvage Corps and Fire Police No. 1, Saint John, N. B.

July 29-Aug. 1, 1935—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 5th Annual School, West Virginia University, Morgantown, W. Va. Address Secretary, W. Va., Fire Chiefs' Asso., C. B. Powell, Romney, W. Va., or Prof. Lewis V. Carpenter, Director, at University.

July 30, 1935—WEST VIRGINIA FIRE CHIEFS' ASSOCIATION. 4th Annual Meeting, West Virginia University, Morgantown, W. Va. Secretary, Chief C. B. Powell, Romney, W. Va.

New Trade Literature Received

The following literature descriptive of up-to-date methods and equipment for fire departments, has been issued for general distribution, and can be procured by writing to the concerns mentioned. Those desiring additional trade literature in which they are interested can use our regular "Information for Buyers" pages listed in the Advertising Index.

Mine Safety Appliance Company, Pittsburgh, Pa.—"The H. H. Inhalator for the Treatment of Respiratory Failure." Four-page circular, illustrated, the device and methods of artificial respiration by its use.

Rockwood Sprinkler Company, Worcester, Mass.—"Prevent Costly Sprinkler Freeze-Ups," two page circular, illustrated, descriptive of the Rockwood Air Pressure Supervisor for all dry pipe sprinkler systems.

Garrison Engineering Corporation, 307 Fifth Ave., New York City: Booklet on the DuGas dry chemical method of fire extinguishment. This equipment is made for portable use or for installation on fire apparatus.

American Steam Pump Company, Battle Creek, Mich.—Bulletin No. 75, an illustrated folder which describes the Barton fire pump and pictures a number of installations of Barton pumps on fire apparatus. It has brief description of the 100, 300, 350, 400 and 500-gallon pumps.

Five Alarms Sounded for Pier Fire

A wooden pier, four hundred feet long, in the Erie Basin section of Brooklyn, N. Y., was destroyed during a five-alarm fire which also badly damaged a cargo of hides, and other imports from Australia. Deputy Chief George T. McAleer of the New York Fire Department, in charge at the blaze, said the fire started from spontaneous ignition.

Fireboats William J. Gaynor and John F. Harvey prevented the flames from spreading to nearby shipping, and to a boat in the drydock of the Robinson Drydock and Repair Corporation. A Standard Oil Company tanker was towed to safety by a fireboat. Two fireboats were held in reserve in case the blaze spread to an adjoining pier. A pile driver which was tied to the dock, caught fire and burned to its waterline before it could be moved.

There were thirty-one pieces of apparatus at the fire, five of which were sent from Manhattan. The damage was estimated at $250,000.

Mason City, Ia., has awarded contracts for a 750-gallon pumper and a salvage truck complete with a 350-gallon pump.

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8 Alarm Systems, Municipal Telegraphic
9 Alarms, Thermostatic
10 Asbestos Clothing
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars
14 Battery Zincs for Fire Alarm Batteries
15 Bells, Fire Alarm, Municipal
16 Body Equipments
17 Boxes, Gongs, Reels, Registers, Fire Alarm
18 Brakes, Air
19 Brake Linings
20 Brooms, Fire
21 Building Materials, Fire Retardant
22 Caps, Firemen's
23 Chains, Non-Skid, Fire Apparatus
24 Chassis for Fire Apparatus
25 Chemical Engines and Tanks
26 Chimney Fire Fuses and Compounds
27 City Service Trucks
28 Coats and Suits, Firemen's Quick Hitch
29 Combination Chemical and Hose Cars
30 Cutting and Welding Equipment, Blow Torch
31 Cutting and Welding Equipment, Electric
32 Deluge Sets
33 Door Openers, Fire Station, Automatic
34 Electric Light Plants
35 Extinguishers, Calcium Chloride
36 Extinguishers, Carbon Dioxide
37 Extinguishers, Soda-Acid
38 Extinguishers, Carbon Tetrachloride
39 Extinguishers, Foam
40 Extinguishers, Powder
41 Fire Boat Nozzle Equipment
42 Fire Department Supplies, General
43 Fire Exit Devices, Door Opening
44 Fire Alarm Posts
45 Fire Escapes, Portable
46 Fire Escapes, Rigid
47 First Aid Equipment
48 Flare Lights
49 Flashlights, Hand
50 Flood Lighting Equipment
51 Foam Generating Apparatus
52 Foam Liquid for Extinguishers
53 Gas Masks and Respirators
54 Gas and Smoke Helmets
55 Gas and Smoke Generators
56 Goggles, Firemen's
57 Helmets, Metal, etc.
58 Hose Bridges
59 Hose Carts, Reels and Racks
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61 Hose, Fire
62 Hose, Chemical
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64 Hose Jackets
65 Hose Standardization Tools
66 Hydrant Draining Pumps
67 Hydrants, Fire
68 Jacks for Fire Trucks
69 Jacks, Shoring and Prying
70 Ladders, Fire
71 Lightning Arresters
72 Motorcycles, Fire Dept. Equipped
73 Nets, Life
74 Nozzles, Pipes and Miscellaneous Brass Goods
75 Packings, Pump
76 Pads, Pole Hole
77 Paints, Fire Resisting
78 Priming Ether, Motor
79 Pumping Cars, Standard
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81 Pumps, Fire Apparatus
82 Pumps, Fire Service, Stationary
83 Pumps, Portable for Fire Protection
84 Record Books, Fire
85 Relief Valves
86 Reviving Apparatus, Oxygen
87 Rubber Clothing
88 Salvage Covers
89 Searchlights
90 Shingles, Fire Retardant
91 Shirts, Firemen's Special
92 Sirens, Apparatus and Chiefs' Cars
93 Sliding Poles
94 Soda and Acid Chemicals
95 Spark Plugs, Fire Apparatus and Motorcycles
96 Squad and other Auxiliary Cars
97 Sprinkler Head Shut-Offs
98 Sprinkler Supervisory Service
99 Sprinkler Systems, Automatic, Foam
100 Sprinkler Systems, Automatic, Water
101 Steam Fire Engines
102 Syphons, Water
103 Tarpaulins and Fire Blankets
104 Tetrachloride Chemicals
105 Thawing Equipment, Hydrant
106 Tires, Fire Apparatus, Pneumatic, Solid, Cushion and Non-Skid
107 Tractors
108 Traffic Clearing Systems
109 Triple Combination Pumping Cars
110 Uniforms
111 Water Towers
112 Wheels, Cushion
113 Whistles, Fire Alarm, Compressed Air
114 Whistles, Fire Alarm, Steam
115 Whistles, Fire Apparatus
116 Wrecking Trucks

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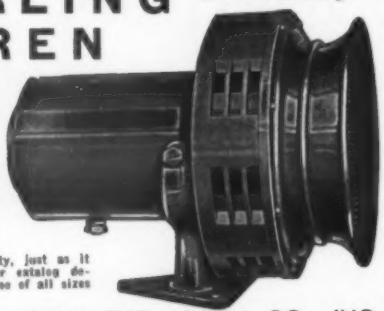

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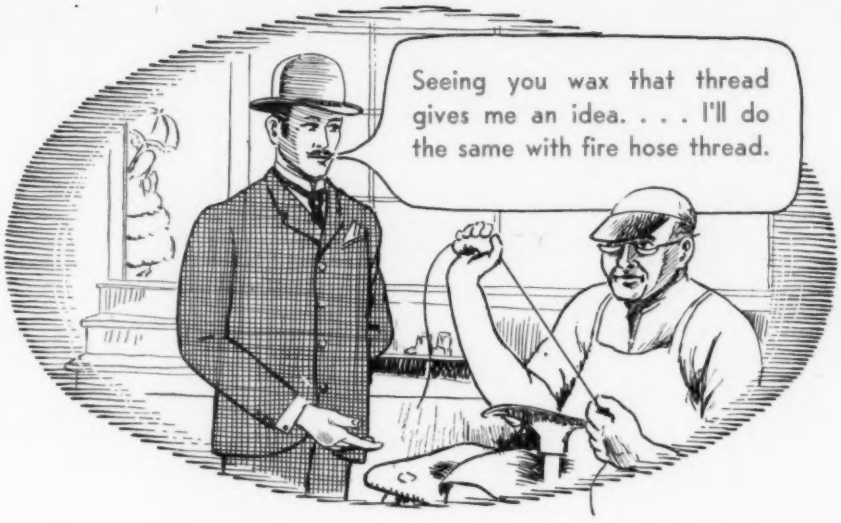

So An Humble Cobbler Gave Us Our Now Famous Waterproofing Idea

MANY YEARS, more than fifty, have passed since that morning when James Gillespie sat in the village cobler's shop in Warwick, N. Y., trying to figure out a method of making fire hose waterproof. Gillespie had already developed the first loom for weaving circular, cable twilled, balanced woven fire hose fabric.

Seeing the cobbler wax his threads before sewing gave Gillespie his long-sought-after idea. He'd make a hose of waxed cables.

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If you have not used Fabric Hose, specify some next time you're buying hose.

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